

My Tour  
in  
Canada

R. L. P. Bell

MY TOUR  
IN  
CANADA

R. L. P. Bell.







M349

Signed

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To H. N. Wood Esq  
and  
Mrs. Wood

With  
Compliments  
from  
the  
Diarist

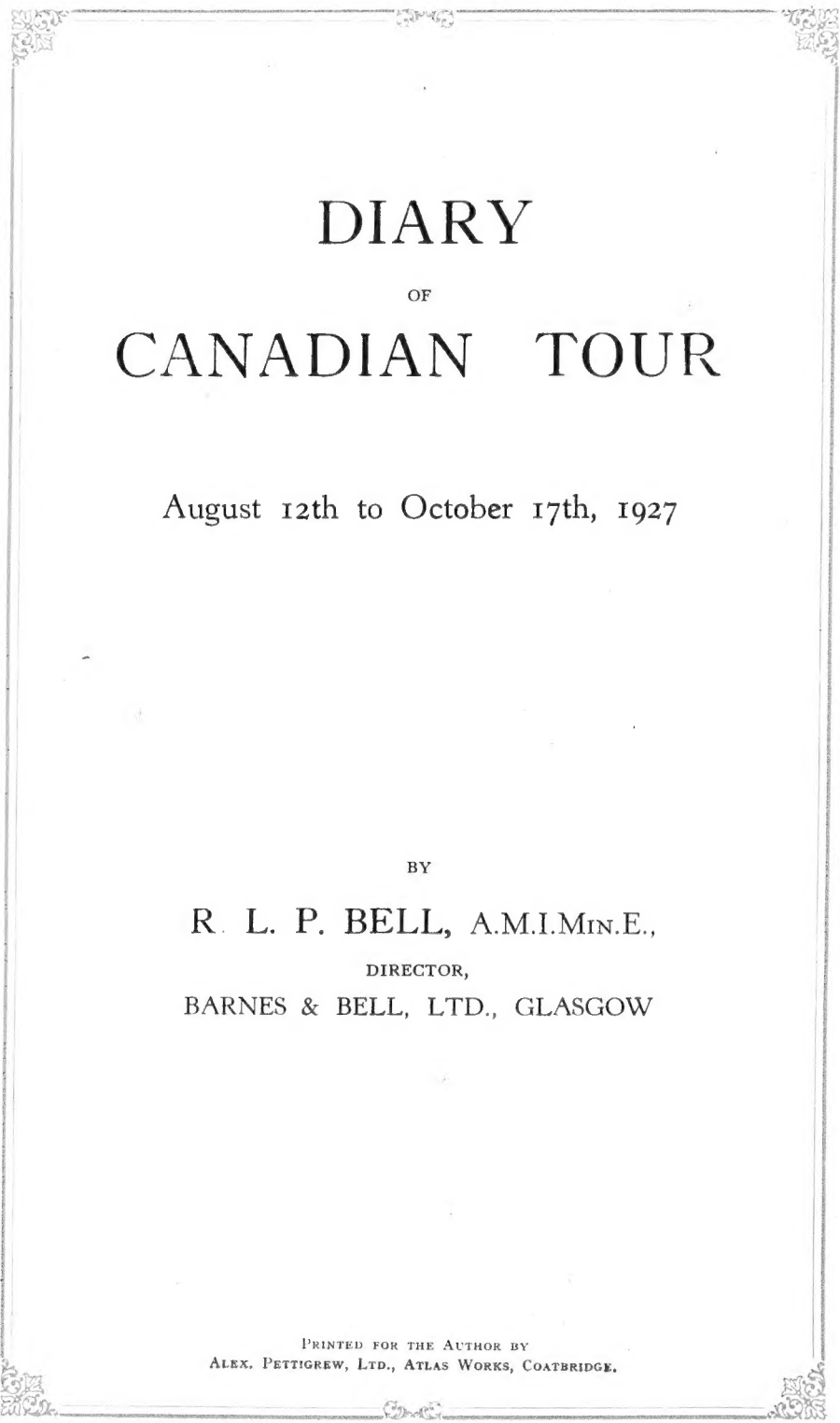
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# DIARY OF CANADIAN TOUR

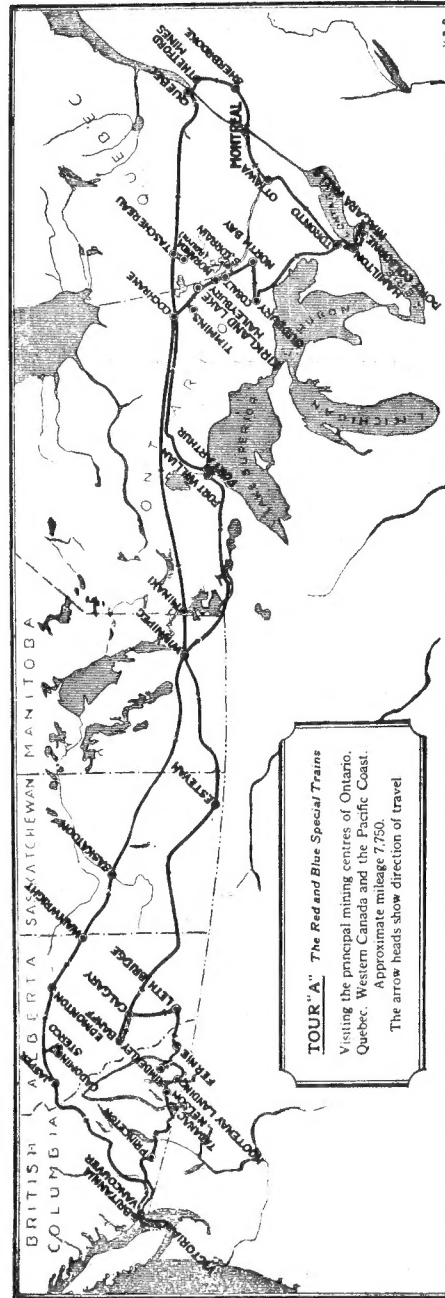
August 12th to October 17th, 1927

BY  
R. L. P. BELL, A.M.I.MIN.E.,  
DIRECTOR,  
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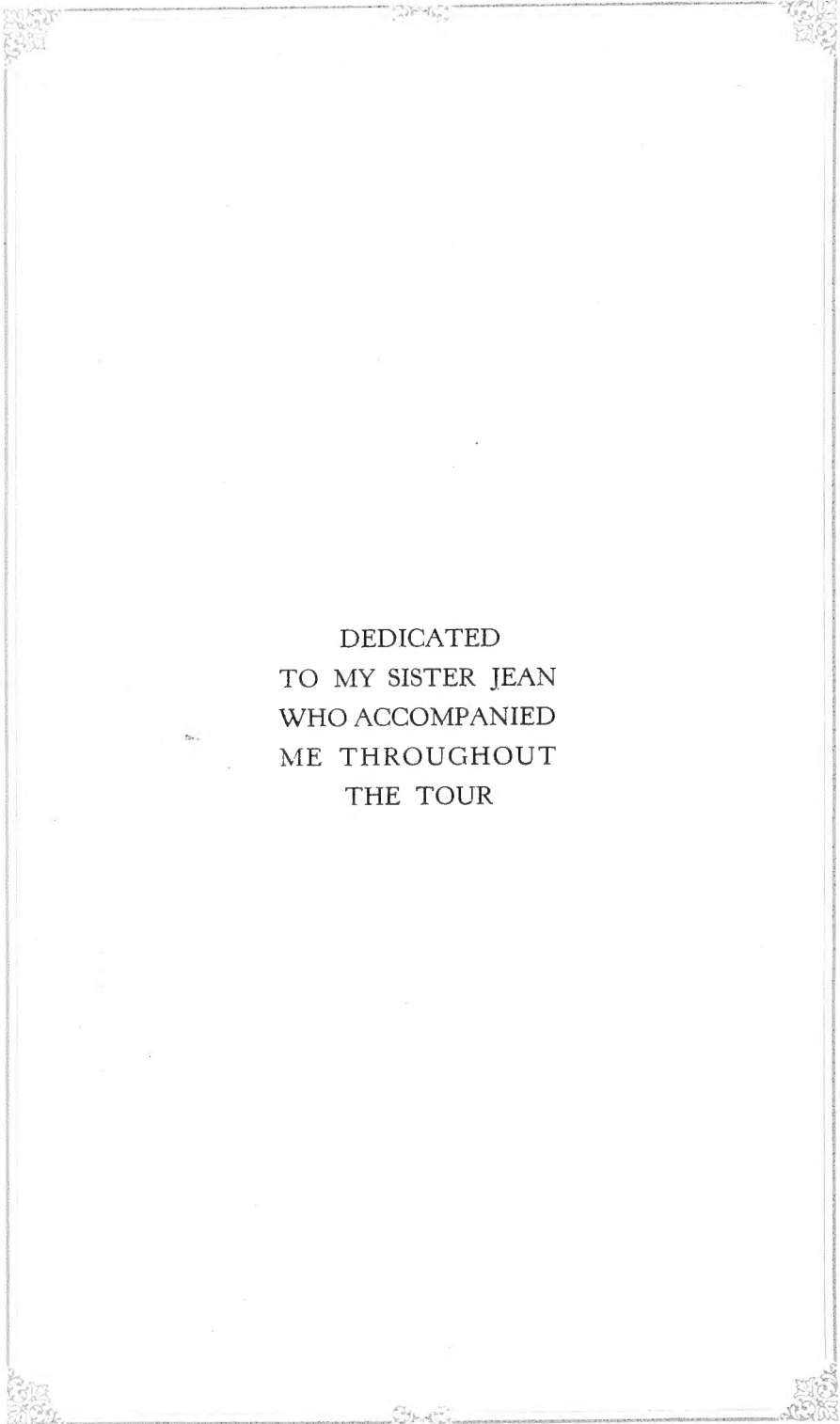
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MAP OF ROUTE TRAVERSED IN CANADA.







DEDICATED  
TO MY SISTER JEAN  
WHO ACCOMPANIED  
ME THROUGHOUT  
THE TOUR





Yours faithfully  
R. L. P. Bell.

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## PREFACE AND ACKNOWLEDGMENTS

In publishing my Canadian Diary for private circulation, I wish to state that no attempt whatever has been made to revise the original script, or sub-edit any apparent deviation, in the various episodes described, from the usual modern journalistic diction, the style of which, I am afraid, I am not familiar with.

Reiteration of terms and general wording may incidentally be observed, and I respectfully ask that such faults may be overlooked, as my impressions were recorded daily under many adverse conditions, and the exact phrasing jotted at the time has been faithfully reproduced in print.

It is meant to be a straightforward, simple story and from this viewpoint I hope it may prove acceptable.

I have gratefully to acknowledge the valuable assistance I received from Mr. H. O. Dixon, J.P., of West Houghton, who generously authorised the inclusion of various valuable descriptive and technical dissertations on power plant at the different industrial centres visited during our trip—these being contained in his own Presidential address which was replete with much astoundingly accurate detail, and personally delivered by him to the Manchester Geological & Mining Society on March 13th, 1928. He also favoured me with the loan of several blocks of interesting views which I have taken full advantage of, and my most sincere thanks are extended to him for his great courtesy and kindness.

My humble acknowledgments are also due to the members of the Canadian Mining & Metallurgical Institute for general information contained in their very comprehensive Programme or Itinerary, which was put into the hands of each member of Congress during the early stages of the tour.

This Programme was most helpful regarding the history of many of the places which we visited and I incorporated in my Diary only what I deemed would be most interesting to the general reader.

I am also under obligation to Major Briggs of Normanton, Dr. Malcolm of Thurnscoe, Mr. Mungo MacKay and Mr. Gilbert Morrison, both of the Lothians, also Mr. M. L. Duffey, Scottish Agent for the Canadian Pacific Railway, for many excellent photographs which they granted me permission to reproduce.

R. L. P. B.



SKETCH OF BADGE WORN DURING THE TOUR





# DIARY OF MY CANADIAN TRIP, 1927

*(Under the Auspices of the Empire Mining & Metallurgical Congress).*

## FOREWORD.

In compliance with pressing requests from many friends for the publication of my Diary "in extenso" bearing on my experiences throughout my trip to Canada, I now venture to submit my observations from a personal viewpoint in recognised diary form with practically no omissions except what I deem uninteresting to the general reader.

I find it somewhat difficult to write the story of my wanderings with the hope of satisfying everyone who does me the honour of perusing these pages. I imagine, however, that many people who have travelled over the same area will find some events in this categorical series of travel impressions to be happily reminiscent of their own trip, and certain data which may not have been available in their case may be found to be quite acceptable and informative. It is always gratifying to awaken pleasant memories, and if my somewhat disjointed records fill the bill, then I shall feel more than compensated.

There are many ways of narrating a story, but many good stories are spoiled in the telling. A tale can be verbally recounted in a manner that may convey intense enjoyment and interest, but when an attempt is made to transfer the subject matter to writing, the results often prove stodgy and laboured and many subtle points are irretrievably lost. I am really of the opinion that I can "tell the tale" better than I can ever hope to write it, but this point may lend itself to criticism.

Before the gentle reader is actually bored and full of wrath over mis-spent time, perhaps he will exercise his "gentle" proclivities ere he proceeds too far with the perusal of these pages, and considerately hoist these Canadian impressions of mine to the back of the top shelf in his bookcase where they can remain obscure from observation and the light of day, in company with many other forgotten mouldy volumes of archæology, science and religion, heavy and ponderous classic tomes, ornate with expensive bindings, and incidentally with uncut pages. In time he may forget the episode of my Diary effort, as time is the healer of all things.

As an Associate Member of the Federated Mining & Engineering Institute of Great Britain, I had the privilege of



being among the number invited to visit Canada during the Autumn of 1927. The invitation was cordially given by the members of the Canadian Institute of Mining and Metallurgy, Montreal, which was the convening body for organizing and carrying through a most delightful and memorable trip from East to the extreme West of the Canadian Continent. It was during the deliberations of the Congress at Wembley in 1924 that the invitation was extended by the Canadians to visit their country, so as to enable the members to secure at first hand an idea of the endless potentialities of Britain's richest possession. Needless to say the invitation was enthusiastically received, the result being that although the length of the trip (practically two months) proved an obstacle to many who found it impossible to spare so much time from business, acceptances flowed in from all parts of the Industrial Mining world and the total number at departure had swelled to 310. This figure was increased considerably after our arrival in Montreal by contingents from the United States and from various parts of Canada itself.

Bulletins from headquarters in Montreal had been issued and spread broadcast to all members of these different federated Associations throughout the mining areas of the world for practically a year before the date fixed for departure, and these Bulletins (in the form of a paper entitled "Congress News") contained much valuable information regarding the resources and the general financial and industrial structure of the Dominion of Canada.

It was definitely specified where development of large areas of rich land awaited the plough and the reaper. There was a description in detail as to what had been accomplished in proved mining districts, coupled with a suggestion of wider possibilities in unexplored territory, with Great Britain as a security market.

It was also hinted that Canada being immensely rich in natural resources (double that of the United States), with cheap electric power, and aided by British Empire preferential tariffs, all things should become possible to the British investor.

We were reminded that present and future prospects were at all times based on the capacity to produce Canada's richest commodities most needed for the world's consumption, and to this end labour and capital were essential.

We further gathered that vast fields of mineral wealth awaited exploitation from the Mother country and that practically every known mineral had been discovered by hosts of prospectors who had turned over the result of their labours to the highest bidder. Gold and Copper had been found in abundance—also Silver, Platinum, Nickel, Lead, Zinc, Mica, Asbestos, Barytes, Limestone, Magnesite, Molybdenum,



Ochre, Gypsum, Feldspar, Fluorspar, Cobalt, Pyrite, Potash, Graphite, Silica, Petroleum, Natural Gas, Granite, Peat and Coal.

It was also mentioned that there were many prosperous Iron and Steel Works, which however, unfortunately, as we discovered later, drew most of their raw materials from Pennsylvania, and were indeed almost entirely financed by American capitalists.

Hematite Ore in a sufficiently pure state had not yet been discovered. There existed plenty of magnesite, particularly around Port Arthur, but this class of ore required to be specially treated before it could be used. I am of opinion, however, that if such extensive rich Hematite ore deposits are mined on the United States side of Lake Superior, the same mineral should be found on the Canadian border of the Lake.

The Lumber trade seemed a wonderful industry. Booklets were sent to us describing Canada as being luxuriant with vast forests of timber which were practically inexhaustible. We were told that flax was grown extensively in Western Canada, tobacco in Ontario and Quebec. Wheat was sent all over the world from the vast prairies throughout the Dominion, where in Autumn or "The Fall" miles of golden grain enraptured the eye and was described as being reminiscent of the gentle ripple of the waters of the Mediterranean under the glow of the setting sun. Altogether the picture set forth was entrancing.

The great inland plain of the Prairie provinces was claimed to constitute the world's premier grain growing area and the capacity of these immense plains could doubtless be still further extended if labour and Capital were forthcoming.

Fruit of all kinds was evidently abundant and in certain parts of the Dominion could be found growing all the year round in the open.

Such was a summary of the information supplied from the Congress headquarters in Montreal as contained in the pages of the "Congress News," issued monthly, and there is no doubt that in this way intense interest was awakened to the prospect of seeing our great Colony under the most favourable conditions, that unerring foresight and skilful organisation could conceive.

Postscripts in letters are often more important than the letters which precede them and I hope I will not be blamed for elaborating my prologue, which in this connection can perhaps be construed as turning the salient points of my diary the other way about. My real object, however, in writing these preliminary notes is to endeavour in a measure to create more interest in the subject matter, which in a Diary is more or less disjointed and obscured.



## DIARY

### *Friday, August 12th.*

Jean and I left Glasgow 10-30 p.m. Arrived London 7-40 the following morning. After breakfast we entrained for Southampton at 10 o'clock.

### *Saturday, August 13th.*

On board S.S. "Alaunia" safely with luggage at 12-30 in time for lunch. Met Mr. and Mrs. Mungo MacKay, Newton-grange, Mr. and Mrs. Gilbert Morrison, Niddrie, Mr. Balfour Sneddon, Scottish Oils, Limited, and Mr. Jas. Hamilton of Rosewell, so that I am among cheery friends. Weather calm but showery.

Mr. MacKay and Mr. Hamilton are Directors of the Lothian Coal Coy., Ltd.

There is a nursery on board with rocking horses and I wish I had brought the children with me. I will need to describe the ship later, but meantime I hope it is going to be as steady as a rock.

I have a cabin to myself and I got one for Jean also, so that we can enjoy our spells of sickness without supervision. The cabin originally assigned to me was a two berthed one, and my sleeping partner was Mr. Balfour Sneddon, but when I discovered a trunk on the floor filling up the entire space, I secured other quarters. Later I discovered that this trunk belonged to a passenger of the previous voyage, so my conviction that Mr. Sneddon had brought all his bedroom furniture with him proved to be a mistake. He was left in sole possession of the cabin, but the incident resulted in more comfort for both of us. He did not venture to recompense me in any way.

At 4-30 we had a drill with life belts—but if the worst comes to the worst I can tread water and walk the rest of the voyage.

Met Mr. Geo. Spencer of Mapperley and Mr. Henry Walker, Chief Mines Inspector. This latter gentleman is now Sir Henry Walker, and he well deserves the honour.

Fine Gymnasium on board. Horse riding by electric motion, also cycle riding and ball punching, so there's a chance to get into form.

Steamer is just calling at Cherbourg.

Waited an hour at Cherbourg and shipped more passengers, also large quantities of fruit and vegetables.

Course now set for Queenstown. At that port, more passengers embarked and with half a gale blowing, the



trans-Atlantic western passage commenced on the course laid down by International Maritime agreement which mutually determines the courses and trade routes for west and east going traffic.

The tracks, I understand, are roughly ten miles across and fifty miles from the centre of the northern track used by ships going west, to the centre of the southern track used by ships going east, so that what may be termed one way routes are provided and the dangers from fogs are considerably lessened.

Thus with proper navigation, head on collisions are impossible and ships overhauling each other are able to deviate with plenty of room to spare and so make practicable a comprehensive safety first axiom on the Highways of the Ocean.

Captain Gibbons is Commander of the s.s. "Alaunia" and he has an excellent and able staff of officers who vie with each other in seeing to the comfort and enjoyment of the passengers. Finished dinner at 8-30—got special table to ourselves and up till now we have all been teetotal, but for how long—well, as the song says, "My goodness, there's no knowing."

Have got telegrams from John Findlay, my brother, Arthur, and my nephew, David Bell, also Mr. Packman and Mr. Raine. Such remembrances are topping.

Bed 10 o'clock Greenwich time.

### *Sunday, August 14th.*

Rose at 7-30 and got breakfast at 8-30. Splendid menu. The following is a fair sample of the daily breakfast :—

Apples	Compote—Prunes Oranges	Bananas Orange Juice	Figs Grape Fruit
Quaker Oats	Boiled Semolina	Post Toasties	
Grape Nuts	Toasted Muffins	Puffed Rice	
Corn Flakes	Shredded Wheat		
Fried Sole	Findon Haddock		
Broiled English and Canadian Bacon			
Boiled, Fried, Turned, Poached and Scrambled Eggs			
Oeufs—Miroir			
Omelettes—Varies			
Saute Kidney	Lyonnaise Potatoes		
From the Grill—Devilled Chicken's Legs—York Ham			
Watercress—Mustard and Cress—Green Onions			
Griddle Cakes—Maple Syrup			
Choice Cold Meats			
White and Graham Rolls	Hovis Bread	Vienna Bread	
Sultana Scones	Toast	Scotch Oatcake	
Preserves	Marmalade		
Tea	Cocoa		



Weather fair but a little joggle on the water. Divine Service was held at 10-30, but I was busy playing deck billiards. Did not meet any new people to-day except Professor Ritson of Leeds University. There is a Miss Elam on board who won this trip as a Scholarship in Metallurgy. Rather a unique profession for a lady.

I have just had lunch. Still teetotal—but if weather gets a bit more blowy, an excuse will be forthcoming.

I am going to spend the Sunday afternoon in the time honoured way, and before taking my siesta I may say that this will be the last note I can get posted till we get to the other side. The box closes at five o'clock.

There is a young Canadian fellow here who has a voice like a defective loud speaker.

Mrs. MacKay has not been well to-day, and there are a good many of the passengers who are not quite so bright as usual, but when they get their sea legs, previous discomfort will in all probability be forgotten.

I will continue these notes later if the boat gets over. If not, don't forget to give the dog a run every night before he goes to bed.

### *Monday, August 15th.*

Same routine this morning, and the clock is again put back an hour, so that if this procedure goes on, we shall not know whether it is yesterday or to-day.

We have been playing shuffleboard all morning and as weather is favourable, the pleasure of the sail is correspondingly enhanced.



R. L. P. B. Playing Shuffleboard



In the afternoon sea is still very calm with a slight ground swell, but weather continues good. Met Major Briggs of Normanton, also his brother and nephew, and they are very sociable and friendly.

A *recherché* dinner was provided for our table in the evening and the menu was specially printed. The various dishes were selected by the chef, who, of course, had to be recognised, and we celebrated the occasion with a bottle of Pommery.

Mrs. MacKay was quite well again to-day and we are all enjoying the delightful experience of a week's sail.

There are all classes of people on board—Directors of Gold Mines, Professors of Metallurgy and Mining, Geologists, Colliery Managers, Government Inspectors, Bankers and representatives from every branch of the Mining industry.

We are travelling in the same class: We each pay the same fares and are socially for the time being on a fraternal and equal footing.

Friendly intercourse is consequently ideal and the experience delightful and memorable.

Saw some porpoises but otherwise no outside excitement.

There was a dance to-night but I only indulged once, as the sea air makes me sleepy.

Met Mr. and Mrs. Allan Woodburn this evening. Mrs. Woodburn was Miss Mary Hutton of Coatbridge and sister of Dr. John A. Hutton, Editor of the *British Weekly*. Mr. and Mrs. Woodburn are resident in South Africa.

Retired to bed at 10 o'clock. My cabin is most comfortable and is fitted with a fan which I keep continuously going. We are sailing with an almost imperceptible motion.

My steward supervises my wardrobe, so that everything is always in apple pie order.

## *Tuesday, August 16th.*

Rose at 7-30. Indulged in usual bath and I followed with some exercise in the gymnasium before breakfast. The electric horses were in great demand.

You touch a button and the horse "posts" and another button sets him galloping. I had also a round with the gloves and a lesson in fencing.

First Wireless Bulletin issued to-day.

Sea still fairly calm. We have been very fortunate in weather conditions thus far, both above and below.

Business has now become a memory.



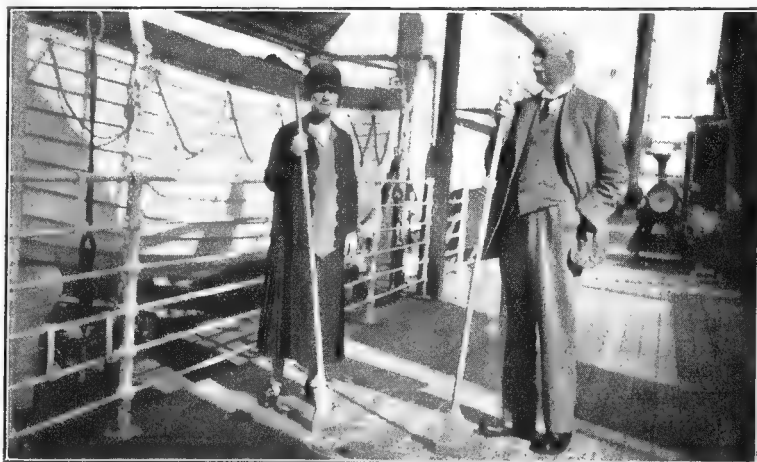
After lunch the atmosphere became very cold and I unfortunately fell asleep for half an hour and got chilled. However, a couple of aspirins and a "tonic" put me right. Deck shuffleboard occupied the afternoon and after dinner there was dancing as usual. The sky all round to-night is whiteish like a wall right round the horizon and whether this appearance means a change of weather, time will tell to-morrow. *En passant*, I learn that the Americans are exploiting Canada for all they are worth, and if we are not careful the best concessions will be taken up. As a matter of fact, America seems bent on securing Canada sooner or later. We must watch out. Another 40 minutes off the time to-night.

### *Wednesday, August 17th.*

Time is passing. Another day has gone with almost the same routine as on previous days. There is nothing to see outside the ship except the ocean. No bird life is visible, there are no passing ships and I wish we could descry some of the denizens of the deep.

A continuous round of pleasure is inclined to become monotonous to a business man. Intellectual giants are also often wearisome and boring and I was occasionally taken out of my depth by many kindly professors of mining and various other scientific gentlemen. They dearly love a good listener.

Innumerable games occupied the attention of the more active passengers and a shuffle board tournament was inaugurated in the afternoon, but I was knocked out in the first round, as my partner had never played before. Such is my luck.



Mr and Mrs. MacKay Playing Shuffleboard



We had a horse race over hurdles before tea with numbered wooden horses controlled by dice. It was quite exciting. Jean and I won 4/6. Had a long chat to-night with Prof. Ritson and Mr. Walker and absorbed a lot of information regarding mining problems.

Got to bed at 12 o'clock—another 40 minutes off the time to-night.

Weather still calm and sea fairly smooth.

### *Thursday, August 18th.*

I forgot to say in my notes yesterday that a Congress meeting was held on board last night. Mr. Charles McDermid was in the chair; Major Wheatley who came across from Canada and sailed back with us was available for answering questions and we got a good deal of enlightenment regarding some matters connected with the trip that were not quite clear. We are promised a great reception in Canada and the Canadian Minister of Mines is coming out in a launch from Montreal to meet us.

Slight swell on water to-day but nothing serious.

This afternoon the weather is still good but life on board is not over exciting. The chart and log extracts are eagerly scrutinised daily, and sweepstakes on the runs give us some hectic moments, but I am seldom lucky. Incidentally this fact has taught me not to risk much.

We occupied ourselves by visiting the engine and boiler rooms of the ship and the complexities and capacities of the modern liner's mechanism proved to be absolutely bewildering.

The huge turbines, condensers and controls filled us with amazement, and brought home to us the wonderful triumphs of modern engineering. The motive power on this ship is generated by four double ended and two single ended boilers which daily consume about ninety-three tons of oil fuel when the vessel is racing at fifteen knots.

We were informed that the coal which would be required to give almost equal steam would amount to 130 tons daily.

The steamer is fitted for conversion to coal burning if necessity arises.

If we could only make low carbonisation of coal a commercial proposition, foreign oil might be excluded for ever, and this new industry would undoubtedly restore the prosperity of our country to a condition unparalleled in British history.

Jean got her coat bespattered with paint to-day owing to a boy dropping a paint pot from one of the life boats on to the deck. It would have been worse if it had landed on her head.



After dinner there was an impromptu concert and I was included in the programme. It proved a very mediocre affair, but like the curate's egg, was certainly good in parts. No dancing to-night.

Retired 12 o'clock.

We expect to be off Belle Isle in the morning.

### *Friday, August 19th.*

We passed an iceberg at six o'clock this morning but few saw it. However, at lunch time we saw ten of them and a school of whales appeared, all blowing at intervals, with their tails and the tops of their bodies visible. It was a great sight. The strange thing about it was that until we got in view of Belle Isle, there was nothing of this kind to be seen. We feel a decided chill in the air, and are exhilarated at the sight of land. The trip is certainly getting more interesting. The water is quite smooth, and the sun is shining.

Passed Labrador and more icebergs came into view. Some of them may be likened to immense white marble cathedrals and these icebergs are generally two-thirds under water and one-third above. Needless to say, the ship gave them a wide berth.

As already mentioned, we saw no ships passing during the voyage, but several have now come into view. Bird life is also appearing. We see the coast on each side of us and we don't feel the steamer moving at all. There was a magnificent display of the Northern Lights (*Aurora Borealis*) to-night. They appeared like a brilliant broad white rainbow, ever changing in appearance, with shooting stars.

The *Aurora Borealis* is a magnetic phenomenon which has not yet been explained, but I know that it makes havoc with the compass.

We had a fancy dress parade and dance as the evening advanced and some of the costumes were very funny and original. There is quite a nice crowd on board, and much credit is due to the genial Captain and his officers for their untiring efforts to make us all happy. We expect to get to Quebec on Sunday and shall have two hours ashore.

Other 40 minutes off time to-night again.

### *Saturday, August 20th.*

We shall be two days sailing up the Gulf of St. Lawrence, and the water is like glass. Nothing of moment occurred to-day. I had a long chat with Miss Elam who is a Doctor of Science and, as mentioned already, she won the first prize



for Metallurgy in London. Dr. Elam is quite a merry girl and talks of everything but Metallurgy.

Weather delightful and the Gulf of St. Lawrence is just as smooth as our own Firth of Clyde.

Passed Anti Costi Isle on the northern side and the scenery was very pretty. The wide reaches of the St. Lawrence were navigated by the ship's officers up to Father Point where the river Pilot was taken aboard, and the Hon. Charles Stewart, Quebec's Minister of Mines also joined the ship. He took an early opportunity of welcoming the delegates to Canada and shook every one by the hand most cordially.

Later we saw other two icebergs and some *white* porpoises.

After dinner, prizes were awarded to the one who had the most original costume at the Fancy Dress Dance and it went to a scarecrow apparition.

We are looking forward to seeing Quebec on Sunday where my scribblings will be posted.

## GULF OF ST. LAWRENCE.

I posted my letters on board to-night and they will go by Quebec.

Had a long chat with Mr. Walker (Chief Mines Inspector) and we talked about mining and safety lamps. At Leeds, the Premier Lamp Co., of which I am chairman, is waiting on liberty to use a self-igniting safety lamp, and I am told that all that is now required is the sanction of the Miners' Federation.

We had another wonderful display of the Aurora Borealis to-night—at nine o'clock—and many travellers who sail regularly to Canada and the States were in raptures over the wonderful phenomenon. Nothing like it has been seen for years. The night was calm and the sky full of stars. All at once the canopy of heaven was pierced by thousands of long silvery needles or streamers of light which seemed almost to reach the water. Then the entire aspect changed. A gleaming opalescent fringe in the form of an arc appeared, illuminating the complete expanse of sky, and scintillating along the surface of the water. The kaleidoscope of colours was marvellous. The next development was a shimmering broad circle of what seemed to be a kind of pearly white lacey curtain, texture and form of which changed incessantly, almost every second. Shooting stars completed the wonderful and awesome picture. No painting or written description, can give the faintest idea of the splendour and beauty of the firmament, as we witnessed it from the upper deck of the "Alaunia." Everybody was



impressed and enraptured and, I am sure, the experience will be indelibly fixed on our minds for the remainder of our lives.

No wonder the Labrador Indians looked upon the phenomenon as their shrine and worshipped this marvellous emblem of the Unseen with much fear and trembling.

### *Sunday, August 21st.*

Still on the St. Lawrence and in sight of Quebec. River very muddy and the scenery on either bank rather uninteresting.

## QUEBEC.

Quebec was reached at 12 o'clock and we had three and a half hours ashore. The Canadian Mining Officials arranged for a motor charabanc trip round old and new Quebec and, although there are some fine buildings, I observed, during this short run, many disreputable ones as well.

The city is intensely French. In the old part policemen and shopkeepers hardly understand English. There are about 30 Roman Catholic churches and 7 Protestant.

Some very striking monuments were observed throughout the main thoroughfares and the higher parts. There is a very fine one erected to the memory of General Wolfe on the Heights of Abraham, where he fell, also one lower down (each in sight of the other) to Gen. Montcalm who was defeated by Wolfe.

Another very handsome bronze statue has been erected near the main thoroughfare immortalizing the memory of General Jacques Cartier who "discovered" Canada, but why Columbus should not have got this credit I can't conceive, as the continents of America and Canada are not separated geographically.

(Traffic goes by the *right* here, same as on the Continent of Europe). A visit to the Chateau Frontenac opened our eyes to the magnificence of Canada's hotels and of the Canadian Pacific Railway Company's ramifications.

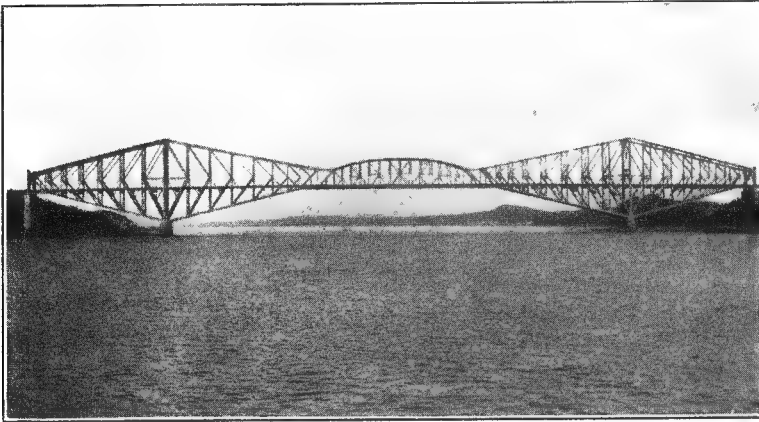
Then we saw the Forts and Great Citadel on Diamond Hill, but these have never been used. They cost 30 million dollars.

Altogether my first experience of Quebec was not stimulating. There was a decided atmosphere of apparent neglect. The grass in the public spaces badly needed cutting, and our French Canadians have a lot to learn in the way of neatness and tidiness.



To-day we have all received a very comprehensive volume giving more detailed information regarding our trip and if we get off the line, it will be our own fault.

After our return to the boat at Quebec, the last part of the sail to Montreal commenced, and we sailed under the new Quebec Bridge which spans the St. Lawrence. It has a total length of 2,830 feet and possesses the longest single span of any bridge in existence, *i.e.*, 1800 feet. The centre suspended span is 640 feet and weighs 5,500 tons. Width of bridge from centre to centre of trusses is 88 feet, with room for two lines of railway, two electric trolley lines, two highways, and two side walks for foot passengers. The total weight of metal comprising the bridge is 65,000 tons.



Quebec Bridge

The test of stability was *daring*. On the first day of opening, two trains heavily freighted came to rest on the middle span and the total weight on the bridge was fourteen million pounds, so that the margin of safety for ordinary use is ample. The Forth Bridge at home is much the larger and more formidable structure, but there is the island of Inch Garvie forming a middle support.

We are now all looking forward to seeing Montreal in the morning. The boat drops anchor at dusk as there are many uncharted rocks and other navigation difficulties which are too risky to face in the darkness.

Dancing is comfortable to-night as the ship is motionless. There has been, however, throughout the trip no particular enthusiasm for this popular form of exercise.

Bed 10 o'clock.



## MONTREAL.

*Monday, August 22nd.*

We were called at 6 o'clock this morning and left the s.s. "Alaunia" at 7-30. No trouble with baggage. Everything was chalked off without the slightest examination. Cars were waiting to take us to the Windsor Hotel and the baggage arrived in due course.

When I arrived at this hotel I discovered that the porter who attended us proved to be a Scotchman from Coatbridge. His name was Donald and he had been in the police force there four years previously. He rather startled me by addressing me by my name, and when he indicated what his previous calling had been, I felt rather alarmed at the thought that the history of my foggy past should have reached Montreal before I ever dreamed of this trip.

I have a nice bath-bedroom and owing to the fearful heat, I have had two baths already. We went to a "Traymore" quick lunch place at mid-day, and the service was unique and smart. All kinds of dainty eatables were on the counter—hot and cold. All we had to do was to walk round the counter, select what we wanted on a tray and pay for it at the other end. The food was splendid and there was a capital variety to suit all palates—the cost being much cheaper than that of a restaurant or hotel.

Before lunch, the inaugural session of the Congress took place in the large reception room of the hotel and the President, Sir Robert Horne, gave a stirring address on Empire needs and the unlimited possibilities of industrial expansion in the Colonies.

The Mayor of Montreal—a French Canadian—welcomed the members of the Congress in quaint broken English, humorously visualising Montreal with its one million population as increasing in a few years to ten millions, thus placing his beloved city in the position of being the Metropolis of the British empire.

Major Riley, chairman of the Canadian committee, and train secretary, also addressed the meeting and explained some of the initial details of the itinerary connected with the trip which was to start next day across the Dominion of Canada. The Major, later on, proved to be a great organizer, and all difficulties en route were invariably solved with a smile.

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During the day we went by train to Lachine and had a trip round the lake by boat, doing the rapids on the way. It was an exciting experience, as the flat bottomed vessel slid over the



surging water, missing rocks by inches. I discovered later that it was an old paddle steamer which for seventy years had been shooting the rapids. It was considerably the worse of the wear and I am afraid the end is not far off. A museum is really the place for it, and the quicker the better if a tragedy is to be avoided. At the double wheeled steering gear, placed on the bridge, the combined strength of four stout men was necessary. No sooner was the helm pulled one way than it had to be reversed again to meet a nasty current. Reefs, shallow water, whirlpools and tortuous rapids were skilfully navigated and we looked on with a nervous thrill which was difficult to control.

We then visited the boiler and antique engine. A great vertical pipe comprised the cylinder of eight feet stroke, with a connecting rod to the beam, and this in turn was fixed on to the main paddle cranks. Loose eccentric did the reverse and one man attended both boiler and engine. The old hulk was built in Montreal in 1857.

500 people were on board. If there had been a band I would have asked them to play "Ora Pro Nobis."

There were two bridges over the narrow part of the Lake where it joined the Gulf of St. Lawrence, and both were built on pillars.

We arrived back at the hotel at six o'clock and after dinner a cinematograph display of "Brown" or "Lignite" Coal Mining was provided for our edification; also a picture of the electricity and briquetting works of the State Electricity Commission at Yallourn, Victoria, Australia.

It was a good show and very instructive. Retired to bed at 12 o'clock.

### *Tuesday, August 23rd.*

This has been rather a strenuous day. I got up about seven o'clock and had a bath in my palatial bath bedroom. I took other two later on, for Heaven knows when I may get another. The forenoon was spent in shopping and looking at the windows. The Windsor Hotel was fairly seething all the time with visitors and during the period we were there, we were in the midst of a vortex of humanity. It got on my nerves. Everything in the way of goods could be bought inside. The Hall was simply a bazaar, with 2000 rooms upstairs.

I am writing these notes in the Ottawa train which steamed out of Montreal at 12 midnight, so that my shaky writing is no criterion of my condition, although I have just left the Windsor Hotel, after being entertained to a banquet arranged in our honour by the Executive of the Canadian Mining Institute.



We were formally "received" by Sir Robert Horne and the Chancellor of the McGill University, both of whom joined in conveying their cordial wishes to the Congress members for a happy and enlightening trip.

When exploring the sights of Montreal I saw some beautiful houses in the suburbs, and the Cathedral was magnificent. All the large Catholic churches as well as the Cathedral were built with unusually wide aisles quite free from the massive stone pillars which adorn similar edifices in the mother country.

There was a large church being built by a famous Catholic Cleric—Brother Andre—and it will not be finished for ten years. Many miraculous cures are supposed to have taken place inside the building and I noticed plenty of crutches lying around, which would seem to verify this assertion.

Montreal seems to be quite prosperous, and I observed no signs of poverty anywhere.

I invested a few pounds in a new Concession of Nickel and Tin to-day and the name of the Company is the "Montreal Rouyn." I expect the return will eventually cover the cost of this publication, but the name strikes me as being an unfortunate one.

A Congress "Session" was held this forenoon but, as usual, I didn't attend.

At the aforementioned official banquet to-night, Sir Robert Horne delivered a highly humorous speech, and I had a chat with him afterwards. He was in great form and asked me if "I kent the Wheeflit." This banquet was outside the "Water Wagon." Sir Thos. Holland was also introduced to me and we are all getting quite fraternal and "matey."

Afterwards, we had a great deal of trouble securing special labels for our luggage and getting it down from our rooms for despatch to the train.

In Canada we are allowed till six o'clock in the evening to clear out of our sleeping quarters and this gives us plenty of time, but all the same, candidly speaking, I am afraid I spent more time in packing and unpacking than in sightseeing.

We wended our way down to the station about eleven o'clock with no opportunity to change our raiment, so that the spectacle of four or five hundred people walking about the platforms in evening dress was a sight for the natives. Fortunately we all knew our berth numbers in the special trains waiting for us.

There were three trains scheduled for the journey—Red, Blue and Green—and they were coloured accordingly. The Red and the Blue comprised Tour "A," and these trains were arranged to travel right across Canada to Vancouver.



The Green contingent was to accompany us as far as Cochrane, Ont., and then turn East for Quebec, New Brunswick, Nova Scotia, Cape Breton and Newfoundland.

I was assigned to the Blue train and after digging out my luggage from what seemed to be miles of cabin trunks, valises, etc., strewn all over the platforms, I eventually got comfortably settled in a reserved two bunked drawing room in the Pullman.

Mr. Gilbert Morrison is my sleeping partner and with his usual consideration he allowed me to annex the under sleeping berth. This drawing room, or cabin, is provided with a private lavatory, and the drinking water was always delightfully cold, as the tank is periodically encased in ice.

We expect to get to Toronto at seven o'clock in the morning, and I don't know what we will do to-morrow. I am not worrying.

Mr. Morrison is presently sleeping peacefully above me, and as it is now 1-30 a.m. I shall require to stop writing through physical exhaustion.

Mr. and Mrs. Mungo McKay, Newbattle, Mr. James Hamilton, Rosewell, and Mr. J. Balfour Sneddon are all in our train. Mr. Hamilton is brimful of quiet humour and is a great acquisition to our party. For half an hour our train has been stopped about ten miles from Montreal, but this does not worry me. I am safely in it and it won't run away from me. I feel dead tired and will be asleep in five minutes.

## OTTAWA.

*Wednesday, August 24th.*

Arrived at Ottawa. Had a good sleep and breakfasted at the Hotel Laurier at 8-30. The sun is now shining and we are having a drive to the Feldspar and Mica Mining Coy.'s Mines at Templeton. The ladies have gone for a more congenial trip by motor round the sights of Ottawa.

En route to Templeton we passed over the Ottawa river, which evidently is used principally for the lumber industry. Immense quantities of timber are passed down the canals to the port of Canada, *i.e.*, Montreal, and from thence exported to all parts of the world for box making, and under certain processes reduced to pulp for the manufacture of paper.

Canada itself possesses an immense number of paper factories, this being a very important industry throughout the entire Dominion.



Lumbering and farming seem to be the principal work carried on all over the country we are passing through to-day. I also observed several extensive fields of tobacco plants. Hundreds of acres are under cultivation in this district. The quality of the leaf is excellent, but I am afraid the growers must export the tobacco, as I found it somewhat difficult to procure even ordinary Virginia cigarettes and the flavour of these was really appalling, and incidentally the price was exorbitant.

We are presently motoring along a wild country road with forests on each side, the ground being sprinkled with mica which is gleaming in the sun. The mica mines are adjacent. Wooden shanties are dotted here and there, these apparently being the homes of the mica miners. I am told there are no Cinemas in this district.

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I have just been over—not down—the mica mines, and they are certainly interesting. The principal mine is about 250 ft. deep with shafts driven from the bottom, and is practically an open quarry or "Glory Hole." The winding rope did not look very safe, as instead of being "capped" there appeared to be only a single loop, and consequently I remained on the surface. So did the Mines Inspector.

The phosphates or natural rock is very beautiful and other minerals are included in the geological formation. Green Apatite is common to this strata.

The mica is found in veins and is sorted out on the surface by specially skilled workmen. Even the smallest piece can be utilised. Mica is split up in layers and is subsequently joined together with shellac at Ottawa, no join appearing visible after pressure.

It is strange, but I am told that it is intensely cold at the bottom of the shaft—the ice appearing like frozen stalactites and stalagmites on roof and floor.

I understand that hammer drills are extensively used in the Canadian mines, and I think a good business in these drills could be done from our own country.

The winding engines are mostly of Canadian manufacture, and the means of getting down the shaft is by kettle. As already mentioned, I did not attempt the descent.

I observed hundreds of dragon flies in this solitary spot. They looked like little birds on the wing, but I did not manage to catch any, although I made many frantic efforts to do so.

Lunch was duly served at the mine. It was delightfully "al fresco," but nothing was wanting. There was whisky and beer and mineral drinks galore, also coffee and tea. The food



comprised soup, cold meats, salads, corn cobs, sweets and cheese. It was an ideal and characteristic Canadian camp meal.

I did not go to the Feldspar Mine as it was situated about 12 miles further west and we had already motored about 100 miles over fearful roads.

This feldspar is used in England in the pottery district in connection with the glazing process.

We dropped into a ditch five minutes ago, but we soon pulled the car out again. If it had gone over, I would possibly have sprained my neck as I was next the window. The scenery is wild and the roads are narrow and full of ruts. *En passant*. I think this is wonderful writing, as I am scribbling in a car jolting over bumpy roads.

We passed over a broken-down looking wooden bridge and it is no wonder there are so many accidents connected with Canadian travel, as neither roads nor bridges in this country seem to be under proper supervision.

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BIRD & CO., CALCUTTA. We met Mr. Field, the General Manager of this Company, who is on holiday for six months. He is a very delightful personality.

After we got back to the hotel we discovered Mr. Barrowman who is a Hamilton man. He has charge of the research department in the Museum. He has a brother in Summerlee Office, Coatbridge. He took us round the sights in his own car and at the close of a very charming run, I can only describe Ottawa as a magnificent capital city. The Parliament buildings are here and the structure is palatial. The parks at Ottawa are extensive and well kept and altogether the city is progressive and is a great advance on the comparatively neglected city of Montreal.

We had the privilege of seeing the great paper manufacturing centre extending for miles up the Gatineau River, bordered by the lovely Laurentian hills.

A stop was made at one of the plants of the Gatineau Power Co., which is subsidiary to the Canadian International Paper Co. This Company intends developing 500,000 horse power on the Gatineau and we thus got our first impression of the immense possibilities connected with the harnessing of the forces of nature to generate electricity in Canada. The excess of power not required by the paper mills is sold to the Ontario Hydro. Commission and local customers.

We are being welcomed on all sides with open arms, and feel almost overwhelmed by the wonderful kindness of everybody we meet.



The evident sincerity of the people and the general desire to make our visit memorable were abundantly evident and I am afraid none of us will be able to reciprocate, if we ever have the opportunity, the hospitality we received in such full measure.

We are also receiving every attention and consideration from the Railway officials, and from the members of the Canadian section of the Congress, so that the strenuous itinerary mapped out for us is being made easy and comparatively comfortable.

The day finished with a *Conversazione* and reception at the Royal Victoria Museum, where various products of Canada were exhibited. We were formally presented to the Governor General of Canada—Viscount Willingdon—and the Viscountess, also to the Right Hon. W. L. MacKenzie King, Prime Minister. We were regaled with every conceivable kind of refreshments, cool and inviting, and the evening closed with a dance.

Arriving back on the train at midnight, tired and happy, we have just left Ottawa for Toronto at one o'clock a.m.

This is some hustle.

## TORONTO.

### *Thursday, August 25th.*

Our "Blue" train duly arrived at Toronto early in the morning, and we are still favoured with glorious weather. Owing to a Co-operative Congress invading the principal hotels, we were relegated to the University College Residence, otherwise called "Hart House," as boarders for the time being. The students were on their vacation so that we had a free run of their rooms. These rooms were found to be airy and clean, with polished floors and splendid baths, being a welcome change from the train accommodation, and I am just going to have a cool plunge.

Breakfast was served at the Refectory but the menu was plain and did not call for much appreciative comment. The previous day's surfeit of delicacies probably caused a contrast that was perhaps not quite fair. The serving wenches were nearly all Scotch and the inevitable porridge grinned up at us from groaning tables.

After breakfast we had some anxious moments in collecting our baggage as it had been dumped down anywhere on the college grounds and each of us had to claim his own. We were all commendably patient, however. The students' quarters at our disposal comprised four block of houses in the



form of a quadrangle and it took me three hours to secure and place my belongings inside my particular dormitory.

The University is beautifully situated and there is a splendid gymnasium and also swimming baths for the students. The lunch, like the breakfast, was "rough and ready," and the Banquet to-night reminded me of a supper connected with a presentation to a gaffer leaving Coatbrig' for another job.

We are listless and tired, but, I must say, our ladies are bearing up heroically. The continuous hustle—"according to plan"—is having a wearing effect on them as well as the sterner sex, and a few of us are inclined to throw out an S.O.S., but we hope to have a good rest during the week-end.

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The ladies enjoyed a comprehensive motor run round the City and parks this forenoon as the guests of the Royal Canadian Yacht Club, and the rest of us witnessed a lacrosse match and managed to include a similar drive later on. We went as far as the amusement centre on the shores of Lake Ontario and I suggest that the facilities arranged by the Corporation in this district, for the youth of the town, also for children should be emulated where anything like similar conditions exist in our own country.

Playgrounds and miniature bathing ponds are provided for the kids and a larger swimming pond is dammed up for the older people. These ponds are slightly warmed, as Lake Ontario water is rather cold, and there is absolutely no charge whatever. Near this recreation spot, the Canadian Exhibition has its grounds and all kinds of amusements are in evidence. The annual Exhibition opens on Saturday and I expect to be there at the opening.

In the park we saw many wild beasts fenced off—among these being a huge buffalo.

The beauty of the towns and spaces improves as we go west, and Toronto may be proud of its splendid city and magnificent buildings.

Another "Banquet" was given to-night at Hart House and there were the inevitable speeches as an embroidery. The Hon. Howard Ferguson, Premier of Ontario, accentuated the now familiar slogan about British capital and British labour being urgently required to exploit Canada's resources. Mineral water was the stiffest drink available during the evening, and the proceedings woefully lacked "spirit" and "go." We were all glad when it was over, and not much time was lost in hieing to our sleeping quarters at midnight.

I wonder if a soldier's life is as strenuous as ours in this great "trek" through Canada.



We lost the genial company of Mr. and Mrs. MacKay for a time at this stage as they had the good fortune to meet some hospitable relatives who resided near.

I learned that they had a jolly good time motoring through and enjoying the magnificent scenery west of Toronto, and I only hope they missed me as much as I missed them.

### *Friday, August 26th.*

Rose at 7 o'clock and went out to see the little chipmunks running about the garden. They feed from your hand and a heavy penalty is imposed on anyone injuring or killing them. These chipmunks are great pets and are in appearance similar to small squirrels, but they are distinguished by three white stripes down their backs.



CHIPMUNK

I met Mr. and Mrs. and Miss Toy of Bilston to-day, and we had a good old chat about Coatbridge and its history. Mr. Toy was a great friend of Provost Davie, and I knew him when I was an employee with the Waverley Iron & Steel Coy., now many years ago.

Had the usual mediocre breakfast at Hart House (University), and I made a few business calls in the forenoon.

I am endeavouring, as Chairman of The Grit Company of Scotland Ltd., to fix up an Agent in Canada to sell our products to sculptors, granite and stone quarry-masters, etc.



This grit is used for abrasure and stone polishing and I think a tremendous business can be done, but I am convinced that the only method will be through the offices of an Agent who must keep a stock for distribution to users.

I have decided in my own mind that the Ritchey Supply Coy., of this city, are the right people in this connection and if I fix up this representation, my visit to Canada from a business standpoint will be more than justified.

BANK OF TORONTO—I saw the Manager, Mr. Skeaff, who gave me heaps of information. He is an Aberdeen man. I asked about the stability of the Ritchey Supply Coy., and the report was quite satisfactory. Trade generally about Toronto seems to be quite good and there is a cheery optimistic atmosphere which I like.

M'INTOSH GRANITE COY., LTD., 1119, YONGE, TORONTO—I called and interviewed Mr. M'Intosh, junr., and saw through the works. They use grit or steel shot for sawing, and they draw all their supplies from the Ritchey Supply Coy. The granite used by them comes from the Dominion of Canada and the qualities and colours are numerous. The new railway station in Toronto is built entirely of granite and marble supplied by this firm, and is a most palatial building.

RITCHEY SUPPLY COY.—I called here but Mr. Ritchey had gone for lunch. I shall endeavour to see him during the week-end and apropos of this, Mr. Skeaff, Manager of the Bank of Toronto, is going to try and see him in the interval and tell him I am a decent sort of chap.

The chief centre for stone production and sawing is Barre-Vermont. Montpelier is the capital of Vermont. Boston, U.S.A., is also a great centre in stone working and I am out to capture American business as well later on. All things are possible.

#### THE STEEL COMPANY OF CANADA, LTD.

We have now stopped at Hamilton, where we saw through the Hamilton works of the STEEL COY. OF CANADA. These works are quite comprehensive, but I was shewn nothing really new.

Included in the plant is a range of blast furnaces, bar and sheet rolling mills, cogging mills, coke ovens, recovery plant, and a large galvanizing department. I learned that all the fuel and ore used here came from the States but this is not to be wondered at, as American capital dominates the concern. An army of officials piloted us through the different departments. We saw piles of different mining products for blending, prior to mechanical charging together with the



coke into the great blast furnaces, after which came the systemised tapping of the molten metal, troughed, not into the usual pig bed, but into an inclined gravity conveyor with self-adjusting buckets acting as moulds, and known as a pig machine, taking each mould in turn through a quenching pit and then ejecting the pig, which was carried by means of another inclined conveyor into wagons for removal and disposal according to the classification of its carbon content. Batteries of coke ovens were next passed. These ovens are charged mechanically from above, and the coke is pushed from the rear.

The doors are all electrically handled from the master control operating each oven in its due turn, and regularly discharges about fifteen tons of coke into steel cars, with very few attendants about each battery.

High powered gas engines drive the generators which supply the electric requirements of the works, transferring the power in the oven gases through the latter medium to every subsequent operation.

Next in order, we were shown the sulphate of ammonia recovery plant, this being a most important branch of the works, as in the near future an unlimited supply of this product is bound to be needed for the grain growing districts of Canada.

The Converter house was then visited, where mixings of pig speigeleisen and other ingredients are brought to the molten state, and later run off as steel into ingot moulds, quickly passed on before the heat is lost, right to the cogging mills, rolled into billets, and passed along live rollers to the finishing mills where sections of all kinds are produced to meet the requirements of every industry.

Each operation was based on piecework and the whole works were orderly, busy, and well equipped throughout with modern machinery and up-to-date methods.

I noticed that test records were taken during the process of every run of pig metal as well as with every billet of steel so that a check and guarantee were assured with each item of production. The inspection of these works was instructive and enjoyable to those of us who were interested.

Outside the office buildings a pipe band, and later on an instrumental band, discoursed music at intervals.

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The ladies motored round the district while we were in the works. The scenery outside the town of Hamilton is very beautiful, and I am rather sorry I did not choose to join this excursion.



After being entertained to lunch we again boarded the train and are now en route to Niagara Falls, *via* the shores of Lake Ontario.

The weather is perfect but a trifle hot.

As we proceed, extensive vineyards and orchards meet our view, and the country is luxuriant with fruit, flower and tree. It is a veritable Garden of Eden.

## NIAGARA FALLS.

We arrived at Niagara Station at 6-45 p.m. and proceeded by taxi to the Falls. The east wind caused a heavy vapour to spread for many hundreds of yards, just like a very wetting Scotch mist, and we could not approach near the official starting point without getting soaked. I brought my waterproof and was rather far-seeing to do so. The scenic tunnel was almost immediately visited.

Enveloped in waterproofs and sou'westers—with our nether extremities encased in rubber boots—we were conducted to the various apertures *under the Falls* and owing to the deafening roar of the waters, we could only converse by signs. Those of us who wore glasses were practically blinded for the time being, with the spray and moisture, and, as I belong to this category, I think I went through the ordeal quite heroically. I returned to the dressing room, spray drenched, and with a decided feeling of general physical discomfort.

I was, at the same time, filled with an awe-struck wonder at the tremendous forces of nature so vividly displayed inside the curtain of the great Niagara Falls.

Returning once more to the open I observed search lights with variegated colours thrown on to the water, and the magnificence and beauty of the picture was absolutely indescribable. We all felt as if we could not leave the spot—the attraction being peculiarly magnetic and alluring.

The American side of the waterfall is called, I think, The Bride's Veil—the effect with the bright searchlights being similar to a filmy lace veil, white and billowing.

Then on the Canadian side, the mighty cataract of water in the shape of a Horse Shoe, filled the air with an overwhelming noise of rushing sound, and, at the same time, enveloped the sightseer with dense cold spray.

Americans should, in my opinion, cease boasting about their share of the Niagara Falls, as the Canadian side is a *much more stupendous proposition*, and carries a *greater volume of water*. These Horse Shoe Falls are gloriously beautiful.



As already indicated, my first impressions of the magnificent waterfall at Niagara encompassed me with a peculiar dread. For many miles before we reached the station, I observed a distinct disturbance in the air, and as we approached nearer this agitation developed into an appreciable turbulence which gradually became more accentuated till the sound of the torrent could be realistically compared to the fury of ten thousand rivers in full spate. Niagara was seductively restless, if I may say so, and when the actual Falls came into view I was filled with wonder, and also at the same time a certain satisfaction, that one of my life's dreams had, at last, materialized.

I had the privilege of inspecting the largest of the Hydro-Electric Stations, and an elevator deposited me very quickly at the river level below.

This huge station is filled with sixteen sets of water driven generators equal to 180,000 H.P., each set composed of twin phosphor bronze turbine wheels keyed on to horizontal shafts common to turbine and generator.

The water passing along towards the centre of the wheel, shorn of its energy, flows by the outlet duct, back to the river, leaving in its wake, through the electric windings, the harnessed power which is probably the greatest asset Canada possesses, termed "White Coal."

Transmission at over 100,000 volts to Toronto and other cities enables all to have an abundant supply of "juice," but I was surprised to find that the charges to the consumer were not low, being practically on a par with those existing in the industrial sections of our own country. (I hope this technical divergence will not be found wearisome, and I hasten to switch on again to my story).

My black train attendant, Joe, is a capital chap; he brushes my boots, looks after my clothes and hunts for fresh raiment in my cabin trunk, which is placed in the luggage van. He posts my letters, brings drinks, keeps my cabin tidy, and generally looks after me hand and foot. Bed linen is changed *every morning*. All the Congress members are valeted in the same manner, and we are experiencing to the full the luxury of travelling under the most comfortable conditions.

Why should we therefore grouse at the necessary hustle to keep pace with the daily itinerary?

The evening was now well advanced and we were gently shepherded back to the railway siding where our train awaited us, in good time to leave for Port Colborne at midnight.

It was a reluctant departure from this world-famed resort but the insistent slogan of "All aboard" was trumpeted all along the line and members of Congress meekly stepped out and unhesitatingly obeyed orders.



## PORT COLBORNE.

*Saturday, August 27th.*

After breakfast in the dining car we detrained at Port Colborne about eleven o'clock in the morning. The village was beflagged in our honour, and we received a most cordial and hearty reception from the toil begrimed inhabitants. The ladies, as usual, were hospitably entertained and the physical well-being of the rest of us was duly upheld and catered for right royally. We were met on arrival by the officials of the International Nickel Co., who divided our party into contingents and led the way to their Nickel Smelting Works.

The sulphurous fumes were stifling, and the entire district suffered from the acrid smell and the poisonous atmosphere. The effluvia reminded me of slag granulation at Summerlee in a nor-east wind, only more highly concentrated.

Inside the works the majority of the workmen wore respirators, and I would have gladly put on a gas helmet had I possessed one.

Here we were shown the product after the initial treatment which takes place at the Nickel Co.'s Smelting Works at Copper Cliff, Ontario. It thus arrives at the Port Colborne works semi-refined and the term "Matte" is applied to the mine smelted ore. It contains at this stage 50% nickel and 30% copper. The "Matte" is here further refined and remelted with fluxes to separate the nickel and the copper.

After being cooled in pots a dividing line appears between the two minerals—about one ton of nickel sulphide at the bottom—with approximately fifteen cwts. of copper sulphide at the top; both, of course, still crude sulphide, as there is left a certain proportion of nickel impregnated in the copper and a comparatively lesser quantity of copper in the nickel. This sulphide is next passed through a jaw crusher, and with the further aid of a ball mill is reduced to powder. The powdered alloy is subsequently mixed with one reagent after another, chiefly rock salt, soda and soda ash, roasted, washed and vatted in muriatic acid, washed again, and finally appears as green or black oxide. Much of this oxide is barreled for Europe but most of it is treated in acid, transferring about 99.9 per cent. of pure nickel by electrolytic deposit on to thin aluminium anodes or plates. A goodly proportion of it, however, is reduced in special furnaces to the molten state again, and shot into water tanks where it is recovered in the form of pure nickel pellets.

Canada manufactures 90 per cent. of the nickel production of the world, and the output in 1925 was 35,000 metric tons.



In the afternoon we motored to the New WELLAND CANAL which is being constructed beside the old one, thus joining on a larger scale the two Lakes, Lake Erie and Lake Ontario. This is meant to allow large steamers to go from one lake to the other. There will be three locks, these locks being 80 feet wide and 1000 feet long. The other part of the Canal will measure 350 feet wide and 30 feet deep. I am of opinion that the locks should have been made wider.

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At Colborne, we were privileged to visit the large wheat elevators which distribute wheat and other grain to Montreal for world shipment.

It was a complete revelation to me to see one of Canada's modern granaries on the Lake side, with a capacity for dealing with three million bushels of grain. At the quay side a steamer from Fort William was discharging, through conveyors, 430,000 bushels of wheat into the storage bins.

This port is always busy in the early *Fall* dealing with the newly threshed crops from the west, which have to be hurried to Montreal for ocean freighters to convey to the world ports before the icy barrier isolates the St. Lawrence from her overseas markets.

In this connection, it will not surprise me if Vancouver, with its all-the-year-round open harbours and quays, should eventually supersede Montreal in catering for the interior grain trade.

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Hurrying to the train which was waiting in the siding, we continued our journey along the banks of Lake Ontario, through the beautiful vineyards and orchards which we passed the previous day, back to Toronto, where we visited the Exhibition and then returned to our University residence, all pretty well tired out, but *inflated with knowledge*.

Mr. Ritchey, of the Ritchey Supplies Co., has just sent me a letter saying he would like to see me to-morrow (Sunday) and I hope we can come to business.

We are all still very fit and the week-end will undoubtedly give us a rest.

I heard from Mr. Findlay to-day, this being the first letter received since I left Scotland. Jean got one from home, and we now both feel content at the news that our country is *bearing up fairly well during our absence*.

Everybody seems inclined to retire to bed and I require no coaxing to follow suit.

Again midnight.



## TORONTO.

*Sunday, August 28th.*

We are having a rest to-day—at least as much of a rest as I generally take. I was in my bath at 7-30, not bad for a Sunday. I 'phoned Mr. Ritchey of the Ritchey Supply Co., and made an appointment to see him at Hart House at 11 o'clock. He turned up with his car and took Jean and myself to his Club, The Granite Club, which is situated right in the centre of the city. It is a most gorgeous place and contains a swimming pool, gymnasium and large airy rooms for all kinds of games in summer and winter. We discussed the possibility of selling Scotch grit, and I think there are satisfactory prospects. I am endeavouring to secure Mr. Ritchey as the Canadian Agent for The Grit Company of Scotland, and he seems inclined to accept.

Mr. Ritchey carries a fair stock of grit, and he has agents all over Canada and in America also. When comparing prices I found that even in the States, with twenty dollars per ton duty against us, our prices were favourable and the quality of our grit is at the same time vastly superior. In Canada there are no grit manufacturers so that duty is not chargeable for Dominion imports of this commodity. Mr. Ritchey was under the impression that The Grit Company of Scotland was controlled by German money, but I quickly put him right and squashed this canard. He has sufficient stock for the season, but we shall get the next business. I have arranged to see him again in Montreal before I leave on my way home, and he will try and get two large buyers to meet me at the same time. If we can make a deal The Grit Company will be put on a solid foundation. Mr. Ritchey is a live wire and, after all, business cannot be done by us direct in the grit line in Canada without long journeys comprising many days and sometimes weeks at a time. I hope to report good news at the end of my trip.

We spent the rest of the afternoon on the beach at Lake Ontario and enjoyed the spectacle of the kids amusing themselves with games and swimming. It is really the "Coney Island" of Ontario. The grown-ups were engaged in all kinds of "divertimenti," and the excitement of water polo seemed to claim the large majority of both sexes. The fun was exhilarating even to the onlooker, as the atmosphere was ringing with laughter and the sound of hundreds of merry voices. The wonderful thrill of the effervescing vitality of youth became infectious and we all felt the priceless joy of living. Bands were playing, in the beautiful gardens, swings,



round-a-bouts and snack bars were in attractive evidence, and everything was heartily taken advantage of and appreciated in accordance with our various moods.

In the evening the air was delightful and cool. After dinner many of us wandered into the University Chapel (a very wee place) and I played the organ to an enthusiastic audience for half an hour.

As I write I am again in the train which is about to leave for Sudbury. We left the University Buildings at 11-30 p.m. in time for our departure at 12 o'clock. Joe had made my cabin as clean as a new pin and his gold mounted teeth were cheerfully displayed in a wide grin of welcome.

Soon I am between the cool sheets and hope to have a good sleep before I tackle further filthy examples of Recovery Plant to-morrow. It would be much more congenial for me to join the ladies in a motor drive, which is their part of the programme after breakfast.

I shall make up my mind when I open my eyes at Sudbury.

## SUDBURY.

*Monday, August 29th.*

Within 15 miles of Sudbury, and I am sitting alone at 7 o'clock a.m. taking breakfast. We are going through a wild countryside, broken up only by the Railway Line. In appearance it is like the rough boulder strewn county of Galloway, and shews evidence of severe volcanic eruption at one time. These rocks or boulders are, in geological parlance classified as belonging to the Archaic Igneous Strata. In appearance they resemble huge inverted saucers or upturned hulls, interspersed with an appalling apology for vegetation, this being stunted, withered and sparse, and altogether exemplifying a depressing picture of desolation.

Buses were waiting to convey us to the Garson Mine of the Mond Nickel Company, and the drive corresponded with our first view of the district with the addition of a few small lakes on each side of the road. They were more like quagmires than anything else and seemed to be incapable of supporting life except of the loathsome variety. It was all very monotonous but we cheered each other as best we could, and at eleven-thirty the Garson Mine appeared and came into the picture.

GARSON MINE—SEPARATION PLANT—Arriving at the Mine, I was feeling fed up, and did not venture below. I gathered, however, that the shaft is divided into three compartments,



timber lined and rectangular. Two of these compartments are for skips and the remaining one is laddered and acts as a downcast. It takes  $1\frac{1}{2}$  minutes to wind the full 1200 feet.

The electric winding engines are driven by a 300 H.P. motor at 500 volts with 400 revs. per minute, and have double drums 7 feet in diameter. 800 tons of ore are brought to the surface per shift of eight hours.

A mechanical mucker is used for handling the ore and throwing it back right into the tubs, and from thence it is conveyed to the shaft bottom, where it is raised to the top.

The ore as it comes from the mine contains an average of  $4\frac{1}{2}\%$  Nickel and Copper combined, and, although it does not appear in our eyes to be a particularly rich proposition, it is sufficient to make this branch of the great Mond Company highly lucrative.

On arrival at the entrance to the shaft—following the operations underground which I have attempted to describe, but did not see—the ore is emptied, then passed along belts, behind which are magnets. In accordance with quality, the pieces are caught by these magnets and, of course, the ore with the highest percentage of nickel adheres to the belts. The lowest quality fails to be attracted at all, and drops into the waste. Thus are the different qualities graded and separated.

The men work on an 8 hours shift and underground miners get about 4 dollars per day. There are three 8-hour shifts. The night shifts are called "Grave Yard" shifts.

I noticed the Company use American Ropes and for their Jumper Steel, Balfour's manufacture (Sheffield) is preferred.

**SMELTING PROCESS**—After lunch we went by special train to Coniston to inspect the smelter and acid plant. This follows the Garston process. The place was a veritable wilderness. The sulphurous fumes, together with the effect of prairie fires, have made the district for miles around an arid waste. Nothing will grow, and my first impressions were that we had arrived at Hades before our time. This being our first wet day the prospect was indeed a dreary and miserable one.

The workmen are Poles or Ukrainians and after the experience of their daily work in poisonous air and being almost roasted alive with belching convertors, the future should hold no terrors for them. Hell cannot be worse.

**FLOTATION PROCESS**—With regard to this process, the selected ore is broken by a revolving stone breaker, then pulverised by several grinding processes till it becomes fine powder. It is then washed and the water is mixed with Pine Oil and other nameless(?) ingredients which produce bubbles on the surface. These bubbles grip the nickel and copper and the rest drops into the waste. The nickel and copper alloy in this consistency



is passed on to what are termed roasters—a gas flame being on top and air suction is observed to act through pallets at the bottom.

The alloy now becomes crusted and contains about 15% copper and nickel (9% nickel and 6% copper). Then through a series of convertors more purification takes place till the finishing beds receive what is termed Matte. This Matte contains 85% nickel and copper (50% nickel and 35% copper), and is now ready for final separation, but this process is conducted elsewhere.

My brain is being crammed with figures and facts. I am daily witnessing chemical and industrial processes that only had existence previously in my mind through the medium of books. If I can reproduce all my impressions in a sufficiently formidable manner when I return, I may feel embarrassed if I find myself on to the same pedestal as the school master in Goldsmith's immortal poem as described in the lines—

“And still they gazed and still the wonder grew,  
That one small head could carry all he knew.”

Sudbury is a miserable mining town, but the people are very warm-hearted and we are being universally received with open arms. The Prince of Wales, who is in Canada at present, passed our train at 7 o'clock this morning en route for Toronto Exhibition, which he has agreed to open, but he did not stop at Sudbury. The town was beflagged in our honour, and Mr. Morrison and I left a memento of our visit in a Ukrainian barber's shop in the form of as many locks of our hair as we deemed to be superfluous. For the first time in my experience I had my hair cut by electricity, the clippers possessing the motive power in place of hand action. It was very soothing and comforting.

DIVERGENCE—I was curious to know why no Railway signals were visible during our entire trip. The explanation is interesting. All trans-continental lines are without signal boxes and do not attempt any block and tablet or staff system, but are worked in divisional lengths of about one hundred miles each, where engines are changed, and drivers conversant with their particular length of track take charge of the train to the next divisional point. At each of these points, a fresh train man is taken aboard and his business is to see to the safe passage of the train through his section. Typed train orders are issued at each of these divisional points to the responsible staff, and explicit instructions are laid down as to which switch is to be occupied for passing trains travelling in the opposite direction, these switches or loops being placed at intervals of eight to fifteen miles. I was in the “Blue” train and the “Red” train with its comparatively less distinguished human freight was twenty minutes ahead, or supposed to be, but a



great deal can happen in twenty minutes, and the "Red" trainman's special and urgent duty was to keep his train safely ahead of ours. In the case of any unforeseen stoppage or block, he had to drop off and warn, and in an urgent extremity, to lay fog signals to pull up the oncomer. The system came into play later on in my own experience, when our pilot train met with a mishap.

ANOTHER DIVERGENCE—At the railway stations, when a train arrives or goes out, continuous ringing of a bell on the engine is the means employed to clear the bays or sidings of foot passengers, as railway cross bridges are conspicuous by their absence. It was therefore a matter of necessity for us to be always on the alert under these conditions of ceaseless bell-ringing, and I am afraid we suffered more or less from badly jangled nerves caused by the din.

Owing to recognised prohibition restrictions it should have been difficult to obtain a recuperative remedy, but a courteous appeal to a friendly permit holder was *never turned down*. Of course, in an emergency a Doctor's prescription was obtainable, but the way was invariably made easy for the sufferer without such necessity.

These divergencies have sub-consciously guided my mental activities away from the scene of Chemical industry under review.

My hitherto insular outlook is gradually becoming expanded, and after all we require to suffer many unpleasant experiences before we reach the Sea of Knowledge. I feel, however, that had I been a Metallurgical Chemist I might have been more successful in describing in a sufficiently technical manner the different methods of transforming these rich mineral deposits into the valuable metals so eagerly absorbed by the markets of the world.

After dinner on the train I felt tired and sleepy. We leave at midnight for Cobalt. Good-bye, Sudbury, your only attraction to me is in the way of Mond dividends.

Are there any more Mining terrors to-morrow?

I already mentioned that Night Shifts in this district are called "Graveyard Shifts," and I only hope the new term has no hidden personal application from which I should shrink! Mr. Morrison is breathing gently above me, dreaming, doubtless, of Niddrie and its welfare. So far as I am concerned, the whirl of the past few days has blotted my previous life out of existence.

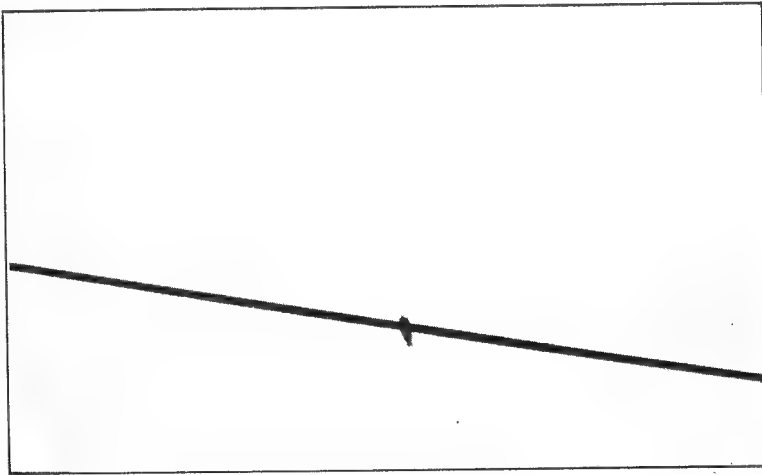


## COBALT.

*Tuesday, August 30th.*

At 8 a.m. we arrived at Cobalt, the centre of the Silver Ore industry. After breakfast we left by special train for silver centre, South Lorrain.

Now passing prairie land, dotted here and there with small lakes. The district seems to have been devastated by fire lately, as for many miles only the charred trunks of trees remain. There is no bird life to be seen. Only a few settler's huts are visible.



The only Bird I saw in Canada

We duly arrived at South Lorrain and visited the Keeley Silver Mine. There was no time to descend this mine and we had to content ourselves with an inspection of the surface plant and products.

Silver nodules were observed on the surrounding rock surface and this circumstance no doubt indicated to the prospector that the territory was highly mineralised. The veins in the Frontier Mine vary from six to eighteen inches in thickness and are nearly vertical. The ores range from four to five thousand ounces of Silver to the ton. This mine caused a bad failure in the first instance, but the next Company struck it rich and the present firm is immensely wealthy. I secured a sample of high-grade Silver Ore and Jean was presented with a lovely ruby, these being occasionally found in rich veins in the strata. Such stones are really *Ruby Quartz* and although pretty they are not pure enough to be particularly valuable.



Returning from the Mines we entrained for *Ragged Chutes* where we slithered on to a railway embankment and trekked through mireland to see the unique TAYLOR HYDRAULIC AIR COMPRESSOR—the compression being derived from the flow of the Montreal River. The visit proved more than interesting. At a small water fall the whole river is dammed and the water is diverted through great motor operated sluices into a vertical pipe eight feet in diameter, contained in a shaft sunk to 350 feet and widened near the bottom to eleven feet in diameter. The water then passes by an underground channel to a discharge shaft 300 feet deep almost a mile down stream, the static head being thus fifty feet. Special air orifices are laid at the shaft top to induce as much aerated water as possible to enter with the flowing water and a Dome Chamber acts as an air vessel to imprison these globules of air, which are continually added to by further arrivals. A steel pipe 21 inches in diameter connects this imprisoned air with the surface and possesses pressure gauges and controls for distribution; and compressed air is conducted for miles to the different mines in 20 inch diameter pipes, with gland fitted expansion pipes every half mile, at a pressure of 110 lbs. per square inch, the sole attendants being one man on duty at the air distribution end and one at the sluice gates production end. A relief valve fitted on the highest point of the air pipe comes into operation when the pressure is unduly great, and a great spout of water is thrown up into the atmosphere and discharged into the stream. It looked like a mighty geyser. After first cost the proposition thus works automatically.

Despite the fact that we were obliged to trail for a couple of miles in the rain through brushwood, swampy ground, and innumerable ditches, the effort was well worth the trouble and discomfort.

In the afternoon we visited the Refining Plant of the Mining Corporation, also the Nipissing Mines refinery, and saw tremendous quantities of pure silver ingots ready for despatch to the Mint.

Then the cars took us to Haileybury which was totally destroyed five years ago by a forest fire, but now rebuilt.

Mr. M. T. Fairlie, the Manager of Nipissing Mines, Cobalt, took our party round in his own car and then extended his hospitality by asking us into his home for refreshments. His house is beautifully situated on the side of the Lake and is wood built. Mr. Fairlie's grandfather was born in Coatbridge and his uncle is Captain Jas. Fairlie, West Kilbride. Mr. Fairlie unfortunately fractured his nose after driving us back to the train. In hoisting himself on the footboard of our Pullman, he did not notice the iron cross bar placed there for the safety of the passengers and his face came violently in



contact with it. His doctor was early in attendance and he was able to entertain a number of his friends in the evening. A cheery optimist is Mr. M. T. Fairlie.

We arrived at the Golf Club House at four o'clock where the ladies of Cobalt entertained us to tea, and they held an informal dance in our honour in the evening.

When motoring to the improvised Dance Hall, our car got stuck in the mud several times and did most of the journey on two wheels. The roads were in an atrocious condition and our party chose to walk back to the train over the golf course by the aid of flash lamps. It was then pitch dark.

The train was waiting for the stragglers and the familiar cry of "All aboard" resounded through the sidings. At midnight the engine bells started their clanging and in five minutes we were moving full steam ahead.

To-day has actually been a pleasant one—rain or no rain—and we left Cobalt with memories of delightful hospitality, which, needless to say, we duly acknowledged with sincere appreciation.

I spent many pleasant and profitable hours with Mr. John Minniken, General Manager of Hickleton Main Collieries, Ltd., Thurnscoe. His charming daughter, Miss Muriel Minniken, accompanied him throughout the tour and, as they were both on the "Blue" train their friendly talks with me whiled away many hours of prairie travel.

In this connection, if I have omitted to record the names of all who by their geniality and sincere friendliness assisted to make my journey memorable, I want them to know that the limitations of space alone prevent me from acknowledging every personal kindness I received from scores of most delightful people.

## KIRKLAND LAKE.

(GOLD MINE CENTRE)

*Wednesday, August 31st.*

We arrived at Kirkland Lake at 9 a.m., this being the great centre of the gold mining industry. There are 5 outstanding companies in full operation, i.e., The Hollinger, Wright-Hargreaves, Lake Shore, Teck-Hughes, and McIntyre.

I elected to go to the Wright-Hargreaves Gold Mine, and under the guidance of Mr. Grant, the manager, I went down the 1200 feet level, then the 1500 feet level. The working of the quartz was quite interesting as the gold in the veins was easily discernable, and I chipped off a piece as a souvenir.



I also secured one or two samples of the strata as produced by diamond boring. The rock is loosened by percussive drilling followed by the use of gelignite and sent up to the surface, where it is treated by cyanide, pine oil, and other separators, thus creating what is termed a precipitate, which, by several other processes, ultimately releases the pure gold. The content of the mined ore here is 20 to 25 dollars (or say 20 to 25 dwts.) to the ton. Roughly the cost of producing a ton of ore is  $6\frac{1}{2}$  dollars, and the price received 25 dollars. This is surely a satisfactory profit. The crushing plants were very fine indeed, and belt conveying of the dislodged ore was everywhere installed. The filtering of the cyanide liquor containing the gold, by means of vacuum revolving filters, to cast off waste solids, was an interesting process. Powdered zinc, by reason of its greater affinity, causes the cyanide liquor to yield up its previous content and take the zinc in its place, thereby producing a black looking object. This in turn is treated in a reverberatory furnace, becomes molten, and is ultimately cast into an ingot of pure gold.

We were entertained to lunch by the Company and altogether we had a splendid time. The town of Kirkland Lake is a typical mining village such as is described in stories of the Wild West and contains innumerable log cabins and a general store.

We left Kirkland Lake at 3 o'clock by our special train for Timmins where we expect to be entertained at the Skating Rink, on the invitation of the Manager of the Hollinger Gold Mines, to a dance and supper. Rain has now stopped and I think we are in for a further spell of fine weather again. We are getting used to the hurry and bustle of travelling and sight seeing, and really we should not complain as the train and our excellent sleeping accommodation are always at our disposal. My cabin is like Paddy's Market, all hooks, racks, and floor spaces being occupied with clothes, underclothing and much literature. My black attendant, Joe, is always hovering round and if I leave the cabin for half an hour everything is in straight order when I return. Joe has three brothers, two cousins and two uncles on duty in the "Blue" train. His father is somewhere on the "Red" train but he has actually *left his mother at home*. We are gradually leaving behind the unattractive and desolate rocky district, with its pungent atmosphere, and, seated in the observation car, our jaded senses are refreshed with a series of lovely panoramic vistas of hill and glade luxuriant with vegetation. We pass thousands of acres of cultivated land, miles of verdant slopes where cattle are grazing and the pretty white timber farm houses with shepherds' huts dotted all over the landscape, complete the moving picture. We certainly woke up and took notice.



At eight o'clock in the evening we arrived at Timmins. This town has a population of 15,000. As arranged, we immediately hied to the Skating Rink, which had been for the occasion converted by the Hollinger Gold Mining Co. to a comfortable Dance Hall, measuring 200 feet long by 80 feet wide, and I must record that our hosts actually spent £1500 in putting down a pine dancing floor over the concrete. It was duly removed next morning, and I came to the conclusion that money is no object in this district. I agree that the kindly thought was undoubtedly there, and the Company being determined to give us a princely welcome, the cost was left entirely out of the reckoning. It was an honour we could not overestimate.

An Orchestra, billed as the "*Grave-Yard Shift Syncopated Orchestra*," discoursed some characteristic dance music during the evening, and we were entertained further to a Cabaret Show by a band of Ukrainian children, dressed in national costumes. This "turn" comprised many incomprehensible games interspersed with Folk Dances. A choir of young Ukrainian girls playing guitars and singing wild choppy songs in their own language added further variation to the programme. The older people of the same tribe gave an exhibition of their country dances as well, each movement of which was accompanied by wild shouts from their leader. This diversion was in my opinion, only once removed from the savage War Dances of the Indian tribes. We were regaled to supper at 11 o'clock, and, after taking part in a few dances ourselves, we returned to our sleeping quarters in the train about 12-30.

And so to bed.

#### STANDARD MILLING PRACTICE.

It will doubtless interest many of my friends who peruse these pages if I append formula of the actual standard practice adopted in milling ores.

This information may be safely accepted as being absolutely correct, and of course puts on one side my own crude observations on the subject, these naturally lacking the necessary technical detail.

The milling of the ore can be divided into four steps :—

- (1) Reduction of the ore to such fineness as will expose the metal to the action of extracting solutions.
- (2) Dissolving of the values with sodium cyanide solution.
- (3) Separation of solution containing values from the solids and elimination of these solids or tailings.
- (4) The recovery of these values from the solution by precipitation and the refining of the precipitate.



At the Hollinger the first reduction is through a 48 inch by 60 inch crusher at the 2150 feet level, which reduces to 7 inch size lumps. Thence successively through gyratory crushers, rolls, rod mills, and tube mills, until it is reduced in size so that 65 per cent. will pass through a two hundred mesh screen. As the rock goes to the rod mills a solution containing three-quarters of a pound of cyanide to the ton is added. This solution starts immediately to dissolve the gold and silver from the rock, and continues to do so through the subsequent grinding operations. In order to complete the solution the mixed ore and solution are agitated with air for sixteen hours, after which practically all the values are extracted. However, the pyrite of the ore contains values not so easily given up, so the ore is concentrated, this pyrite separated, ground much finer and further treated to extract these more difficult values. After the dissolving action, the separation of solution from tailing is accomplished in one or two ways.

- (1) The mixture is passed through a counter current decantation plant where the values in the solution accompanying the tailing are successively reduced through three tanks. This pulp is then filtered and washed to remove the remaining values.
- (2) The pulp is filtered and washed on two successive filters which accomplishes the same result as above.

Having the gold and silver in solution, a small amount of zinc dust is added to the solution. This zinc dust throws the gold and silver out of solution as a fine powder or precipitate. This precipitate is filtered out of the solution and sent to the refinery.

At the refinery it is boiled with hydrochloric and then sulphuric acid, the final result being four separate products—gold of over 99 per cent. fineness, silver, some copper, and some lead.

## *TIMMINS.*

(PORCUPINE DISTRICT)

*Thursday, September 1st.*

I rose this morning rather tired after the mild dissipation of the night before, and, after doing fair justice to an appetising breakfast, I went by car to inspect the McIntyre Gold Mines. The most extensive mines in the district are the Hollinger, but I think the McIntyre fields are next in importance. In any case we saw more at the McIntyre than was shewn at the Hollinger.



Underground we climbed ladders into the stopes or rooms which connect one level to another and the thing that impressed me most was the tremendous diameter of the timbering. I don't understand how the men can deal with it, but they do. The McIntyre mines produce 4000 tons of rock per shift and with .12 of gold, a handsome profit is inevitable. There is certainly a great future in store for the township of Timmins.

The recovery plant is practically the same as we already inspected and described, but we did not get any gold souvenirs. If my brother John had been here *we might have had some luck.*

During the time we spent at the Mines the ladies were, as usual, hospitably entertained by the youth and beauty of the township, and I must say that some of the Timmins girls were exceptionally pretty. I braved the mining programme to the bitter end, but had I followed my own inclinations I would have been otherwise engaged. The fleeting hours passed at these blessed mines and I lost my opportunity.

Almost the entire day was taken up in investigating the art of gold production and at 4-45 we attended the unveiling of a monument, or rather flag pole with a concrete base, which bore an inscription to the memory of the men from Timmins who fell in the war, and the ceremony was quite impressive. General Sir William Furze, of our party, unveiled the monument and made a patriotic and dignified speech well worthy of the occasion. Practically the entire population of Timmins was present and when our trains departed from the station at five o'clock, the shouts of "Bon Voyage" and "Good Luck," accompanied by much vigorous handshaking, impressed us as being one of the most cordial and cheering outbursts of goodwill that we had yet experienced.

Next stop is at Cochrane, Ontario.

The weather has been superb to-day. I only hope I am not putting on too much weight with the tremendous amount of nourishment I am obliged to consume.

#### COCHRANE.

We duly arrived at Cochrane, Ontario, at 7-30 p.m.

Here we parted with the Congress members in the "Green" train. This section elected to exploit the mine fields of Nova Scotia and Newfoundland, and accordingly the "Green" train later in the evening proceeded to the Atlantic coast, while the "Red" and "Blue" trains continued their journey to the Pacific coast. I was, of course, a passenger in the "Blue" train.

The parting was accompanied by mutual felicitations and many warm expressions of deep and lasting friendships which it was hoped would be renewed at Montreal at the close of the trip.



## COCHRANE.

COCHRANE, which had been decided on as a parting of the ways so far as our different venues of travel were concerned, is a little town of 3,500 inhabitants and was founded about twenty years ago. It is a divisional point on the Quebec to Winnipeg line of the Canadian National Railway, and is the junction with the Temiskaming and Northern Ontario Railway. There is a considerable settlement in this vicinity and it is a good outfitting point for prospecting, hunting, fishing and canoeing trips.

Travelling as we are, through the night, I missed many scenes of sylvan beauty. Seeing, however, as it were, through a glass darkly, I notice that part of the country through which we are journeying is in the early stages of development. At intervals many clearings with their log buildings are observed. We cross on our journey numbers of streams that flow northward to the Albany, a large river over six hundred miles long, which has its outlet into James Bay. For many decades the Indians from far and near have visited the Chalybeate Springs near Hat Island on the Albany to take advantage of its medicinal waters. The trees surrounding the springs are blazed and marked with certain syllabic characters designed and introduced by James Evans, an early Wesleyan missionary among the Crees, and which many Indians can read and write. Written entirely phonetically, it is unhampered by irregularities and can be readily acquired by one Indian from another. So general is their knowledge of this Sign Language that every Indian camping place, and every point where canoe waters diverge, become local post offices, where letters written on birch bark are left for the information of following parties.

I am afraid I am now feeling the "Call of the Wild" surging through my veins. Is not town life, after all, in a measure artificial and insincere when compared to that of the prairie where nature appeals to us with a magnetic grip and proclaims through our inmost being that our greatest and most satisfying happiness lies in simple toil? The fragrance of the up-tilled soil, and the ultimate reward of labour with the plough and sickle are surely sufficient compensations for a life of comparative isolation when at the same time the grandeur of God's handiwork as exemplified in the stately mountains, pure rivers, verdant valleys and rolling prairies, ought to satisfy every desire of clean noble manhood. Yes, I think the settler enjoys the most natural life, and what he misses is negligible.



Hudson is our next objective, and we pass Armstrong on the way. Armstrong is a divisional point on the railway 375 miles west of Cochrane, and this place will be reached about breakfast time in the morning.

It is now 12-30 and I gratefully join the mighty throng of sleepers.

### *Friday, September 2nd.*

This morning we are travelling en route to Hudson where I start on my aeroplane trip to Long Lake. We have passed a number of the Hudson Bay Company's encampments or stores where the pelts are bought from Indian trappers. The pelts are principally beaver skins.

The country is becoming still more beautiful as we roll along. Now we are entering the wilds of Manitoba.

At 9 o'clock a.m. we stopped at Armstrong where our watches were set back an hour, as at this point Eastern time is changed to Central time.

Continuing westward, another settlement, Sioux Lookout, also with its Hudson Bay stores, was soon reached. Here I took some Indian photographs. There was quite a colony of these Redskins waiting our arrival and I secured a good snap of a squaw with her tiny papoose, or baby, the latter being encased in a little coffin like cradle which could be rocked sideways and on end. The attitude of these singular people was of the usual stoical indifference.

From this place, and also from Hudson, twelve miles west, canoe and aeroplane routes lead to the Red Lake Gold District, eighty miles to the north. Round about Hudson there is abundant opportunity for big game hunting, particularly moose and deer. Log cabins innumerable are in evidence, dotted all over the plains, and a clear view is obtained from our observation car which is placed at the end of the train. In these log cabins dwell the prospectors who are searching for further rich mineral deposits and dreaming possibly of another Hollinger or McIntyre discovery. It is strange to think how some strike it lucky while others starting with an even chance are doomed to failure.

We still see no sign of bird life and I presume the devastating prairie fires are responsible. I have asked but can get no authentic information on the subject.

Keeping our eyes on the alert we pass many large fresh water lakes, hundreds of them, all swarming with fish. I am told that if you go out in a canoe, *the fish bite the bottom of the frail craft*. The game are absolutely fearless, so that with a fishing rod and gun the sportsman must have a wonderful time.



## HUDSON.

HUDSON was reached at 11 o'clock a.m. and here I left the train to join the aeroplane party who had arranged to embark in flying boats en route to Long Lake.

It was rather funny to learn that most of the married men who had booked for the air trip were obliged to "call off" at the last moment in deference to the tearful protestations of their wives. Jean made no comment regarding my welfare, possibly because she knew I was a wilful man, but all the same there was certainly an element of danger. The required number of passengers was eventually forthcoming and I bravely "walked the plank" to the seat assigned to me in the seaplane, which was swaying unsteadily at the little pier.

There were three passengers besides myself, Major D. H. Curren-Briggs, Mr. R. H. Curren-Briggs and Mr. Cochrane Carr, jun. In starting, the plane rushed over the lake surface at a terrific pace for about 300 yards, then it rose gradually and I experienced my first thrill of seeing the earth and the waters thereof leaving me high and dry, poised in a fragile fabric structure which proved to be a veritable plaything of the air currents when it ascended above the clouds. How helpless and insignificant I felt when I realized that an injury to any part of the plane might mean instant destruction. I had no tremor or fear of any kind, however.

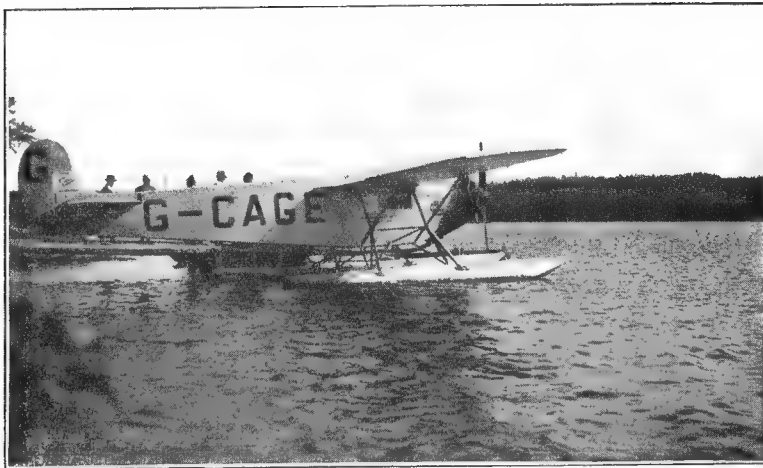
The "Blue" train has proceeded to Minaki and thence to Winnipeg where I hope to rejoin my friends two days hence.

I shall describe my air trip in the next instalment.

## DESCRIPTION OF MY FIRST AIR TRIP.

WRITING IN WATERPLANE—I have now embarked on a seaplane, which, at the present time, is rocking or "banking" from side to side 1500 feet in the air. It is a thrilling experience, but the vibrations and swinging motion are not sufficient to prevent me from writing. We are proceeding at 80 miles an hour over moorland and lakes by the score. At this height I can count 24 lakes. As already noted, the seaplane when starting made a deafening noise when rushing through the water, then in a couple of minutes it rose gradually into the air till eventually it reached this height. We are now 2000 feet up and I don't see what prevents it from somersaulting. I am getting giddy looking over—now we are 4000 feet up.





Our Seaplane at Landing Stage]

The air currents are causing considerable swaying but the panorama is unforgettable. Now 5000 feet. There are two planes, and we are closing up with the other one. The leading plane has dropped near to the water, possibly to receive a message from an outpost. I have taken a photo of it.

We are now ahead and the other plane is rising and following up. Still swaying and circling and rocking, but I am very comfortable and enjoying my first air trip.

From my perch I can now see over 100 small and large lakes. I think the swaying of the plane is caused by the variety of currents encountered, and the difference in density of the air above the ground, as compared with that over the water must also affect the even progress of the machine.

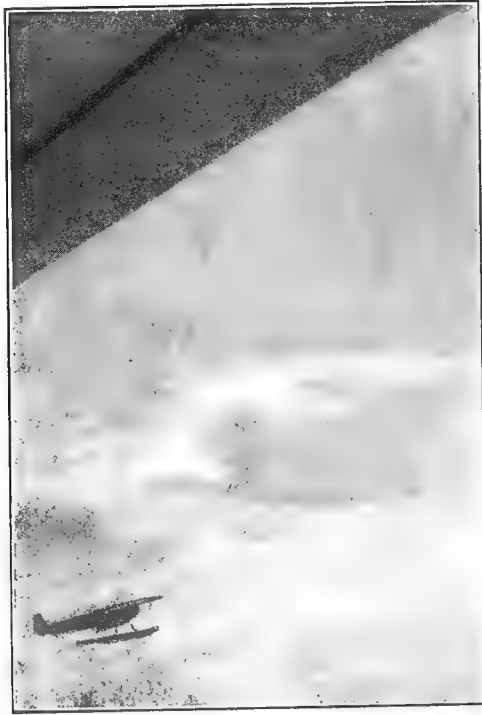
The sensation of flying in a plane is similar to that of sailing in a boat with a ground swell tilting the vessel from side to side, the said boat being engined with a set of old beam engines making the very dickens of a racket. To look over the side makes me giddy—still 5000 feet and a storm is brewing.

Weather has quickly changed. We see clouds from the distance advancing to charge us and we are now enveloped in mist and rain. Dropped a few hundred feet to keep sight of land. The sun again appears but an air current strikes us savagely from below. I am getting used to the vagaries of the elements, however, and am joyfully excited at the wonderful experience.

We are passing over many large lakes dotted with islands. The mental effect is novel and exhilarating from this giddy height.



4-10 p.m.—We are now *above the clouds*. It is raining heavily below and the sun shines above. The country appears flat and full of waterways. It is all very thrilling—still 80 miles per hour.



Our Plane above the Clouds

Owing to the storm, abetted by the treacherous air currents, we were obliged to deviate occasionally from our direct course and eventually we reached Long Lake one hour late. Dropping gently into the water again with an impact which was scarcely perceptible, the propellers got into action and the din of the machinery and the churning of the water was ear-splitting.

In a few minutes we were alongside the pier where we received a warm welcome from the manager of the Central Manitoba Mines, Mr. Stovell, with Mr. Beresford his surveyor. We were escorted to their log cabin and regaled to an "*alfresco*" tea. The tea was served in flat tin pannikins and we used tin plates. The eatables were all home made—flap jacks, bread, jam and a pastry called "*kisses*." We met our hostesses, Mrs. Stovell and Mrs. Beresford, and they vied with each other in their attention to the air travellers. I am



afraid we are being spoiled by kindness. I discovered that all these mining officials are university men—Mr. Stovell is from M'Gill University, Montreal, and Mr. Beresford from St. Andrews University, St. Andrews, Fife.

Our next move was to visit the Kitchener Mine belonging to the Central Manitoba Coy., and the way lay through the brushwood, wild and thick with scrub. There was a single trail, wider than usual, but rocky and full of ditches or "muskegs," as they say in Canadian parlance. Several of our party walked the trail but I elected to ride on a team wagon drawn by two wise old horses. When we started I was warned that it would be more comfortable to walk, but I wanted the experience. I got it all right. Never had I such a rough ride. I sat on the bare boards beside the driver, and the old horses plodded along up rocks and down the other side with never a slip. We went through bogs, sinking well over the axles, but still not a stumble. The rain came down in torrents and I was soaked through, as I had no waterproof. I had only been allowed to bring 10 lbs. of luggage and the extraneous burden comprised a toothbrush, a suit of pyjamas and a safety razor, so that I "sure" travelled light.

I held on to the old driver's legs and the south end of my back became chafed and sore. I vainly protested against this cruelty, but still the jolting went on, and I arrived at the Rest Camp (Kitchener Mines) more dead than alive. I hunted around for a soft chair to sit on, but in a miners' camp there is no such luxury. I accordingly, more or less, spent the evening standing. There was not a spring on the old lumber wagon, so that anybody can understand how I suffered.

The country around here swarms with moose, deer, minx, skunk and marten. We were advised to avoid meeting a skunk, as an encounter with this gentleman meant that if he squirted his pernicious fluid on any part of our raiment, the said raiment must be immediately destroyed. The nauseating stink remains a permanent fixture and no chemical has yet been discovered that can even modify the horrible effluvia.

We were cordially welcomed by the other officials residing at the camp and they saw to our comfort in every possible respect. In my particular case, the comfort was sorely needed.

## KITCHENER MINE, MANITOBA.

*Saturday, September 3.*

I left off my last communication describing my journey and eventual arrival at Kitchener Camp. After introductions to the doctor and, indeed, the entire mining staff, we were taken over to the cookhouse, where we enjoyed a splendid supper



consisting of soup, roast beef, cold meats, salads, sweets, cheese and ices, followed by coffee. The plates were metal and the same dish served *for all the courses*. It would be possible to get used to this camp meal service in time, no doubt, but for a start it was a bit of a knock out. The food was certainly rough and ready, but there was an abundance of it and cooked to a turn.

Later we were supplied with acetylene lamps, then clothed in oilskins and gum boots we descended the gold mine at 11 o'clock p.m. We remained down for 2 hours. I was not much impressed by this mine as it was in the first place a very wet proposition, and in the second place the gold ore veins were only to be found in pockets—straggling and uncertain through the agency of faulty strata.

There would be a vein three or four feet wide and by calculation it was expected to run to 1200 yards, but it invariably ended within 10 yards and the management had then to find out by drilling where it had gone to, but this process is rather expensive and, to my mind, unsatisfactory.

These Manitoba mines are boomed in Winnipeg, but when I was approached following my visit there, I threw cold water over the prospects. I was conducted to two levels, the upper one 300 feet and the lower 375 feet. The full output is expected to be 300 tons per day with 9 dwts. to the ton, but at present the ore is dumped on the ground till the recovery plant is ready, and this will not be accomplished for 3 or 4 months. No gold is shewn in the rock, the appearance being dark with a little sulphide shewing.

After our return from the mine, we adjourned to the bunk-house and had a sing-song with stories of adventure interspersed. I proposed the toast of the evening, *i.e.*, the health and prosperity of our generous hosts, and this toast was cordially acclaimed.

We were necessarily very temperate during our stay, as only half a bottle of "Fire Water" was available at the camp and we were miles from anywhere. We eventually got to bed at two o'clock. We lay down in home-made camp beds with no mattress and no sheets. An old army blanket was our entire covering and in a few minutes everybody was asleep.

Opposite my plank bed lay a trade paper reporter who slept stertorously, with many grunts and gasps, the quartette of these accomplishments being complete by the fact that he boasted a full set of adenoids which automatically pressed open his mouth and produced an intensely unpleasant snore. The sound was in the region of *CC pedal bass* interrupted by spasms of snorting and I anticipated an apoplectic seizure, but I saved his life during the night by throwing missiles of various descriptions at his head, at intervals. My aim was perfect as I did not miss once and the moon being full, the



visibility was ideal for target practice. My Falstaffian friend was rather distant in his demeanour to me next morning, but surely I cannot be blamed, as I merely acted in self-defence, and moreover saved him from destroying himself in an unconscious moment.

I was up at six and had a splendid breakfast at seven o'clock, consisting of cornflake, porridge, dried fish, bacon and egg, cold meats, coffee, tea and marmalade. These boys do themselves well.

We then inspected the plant in course of construction, and at 9 o'clock started on our visit to the ELDORADO MINE. The trail to this mine permitted walking in Indian file only. It was "constructed" three months previously, and I would not cover the same ground again under any inducement. This laborious physical effort nearly bowled me over, and I will describe my adventures in the next chapter.

The chairman of the Eldorado Mine visited his property a fortnight ago and his declaration that he would not have missed the experience for a million dollars, *but that he was damned sure he would not repeat the feat for another million dollars* is vouched for as absolutely true.

## LONG LAKE TRAIL.

In expressing my opinion I would say when I look back that my tramp, not through moss and fell, but through the swamp, over vast wastes of rock and coarse vegetation, will ever remain a horrible nightmare. I stumbled over slippery boulders, through dense brushwood, over awful swampy ditches spanned by 3 inch fir tree logs, which rolled when stepped on, and I had to be a blinking contortionist to avoid falling headlong into the morass and injuring myself. I slipped dozens of times and was soon covered with cuts and bruises.

Rugged pines devoid of leaf and colour cast long shadows over the trail. Everything appeared so still, grim, and dead, and the silence was only broken by the intermittent cries of unseen wild animals. I had a creepy feeling of lurking danger, as I was close to the haunts of the grizzly bear, and the coyote, the lair of the fox and the skunk, not to mention a variety of repulsive, slimy, poisonous snakes whose moving bodies were observed disappearing into the rank grass on my approach.

The aspect was wildly bleak and bleakly wild.

The distance was said to be  $4\frac{1}{2}$  miles but they proved pretty long ones. Although I was not absolutely dead beat, I experienced the discomfort of being drenched with perspiration and, on arrival at the mine, I was on the point of collapse, my vitality having been seriously affected by over exertion.



The sweating was so profuse that even my jacket was soaked through. I immediately shed my shirt and the greater part of my clothing and donned a miner's clean white cotton singlet till my own apparel dried. I have a photo of myself in this miner's outfit. Throughout that entire forenoon the sun shone mercilessly down on my poor tortured body. I was assailed on all sides by swarms of mosquitos and vicious black fly. Almost naked from the waist upwards I was an easy prey to these pests and by the time I dragged myself into the Eldorado Camp, I was covered with painful red spots which, however, after treatment, disappeared in a few days.



Our arrival at Eldorado Camp

I thought the perspiration that exuded from every pore might have drowned these blood-thirsty insects, but it actually seemed to form a kind of liquid nourishment on which they thrived, and stimulated by their orgy they returned again and again to the attack in companies, regiments and latterly in battalions, *all in close formation and regardless of casualties.* How I came through the cruel ordeal I am afraid to hazard a guess, unless, perhaps (who can tell?), there may be some remnants of the valiant spirit of my adventurous border ancestors still abiding in the family, and on this momentous occasion, the legacy, latent till now, enabled me by a supreme effort to overcome all difficulties. It was a triumph of *mind over matter.*

### ELDORADA MINE.

This Gold Mine is managed by Mr. La Bine, a very capable mining prospector of 20 years standing. The capital of the Company is not all taken up, but shares have risen recently



from 25 cents to 75 cents. I think it is an admirable proposition. The ground shews gold all over the surface and there is a certain vein of quartz proved for 1200 yards down.

This Company is putting down plant to recover the gold, and the power will come from the Great Falls 40 miles distant. The Kitchener Mines (Central Manitoba Co.) are getting their juice from the same source.

Mr. Beresford surveyed the Eldorado Mine and he holds 7000 dollars worth of shares.



Our Seaplane at Long Lake Ferry

After a splendid lunch I started on the trail again for  $3\frac{1}{2}$  miles through the forest and arrived without mishap at Long Lake about 2-30, where I entered the seaplane again for Great River Falls.



## RETURN AIR TRIP.

WRITTEN IN WATERPLANE—I left Long Lake by seaplane at 2-35. I am again writing in the air as the plane is sailing 4000 to 5000 feet above the earth. I feel giddy looking over the side and the swaying is unnerving. The plane dropped suddenly several times when a vacuum pocket was reached and my stomach seemed to leap to the crown of my head, each time, but I tenaciously continued to write my impressions in my Diary and the misplaced parts of my anatomy gradually resumed their wonted position.



Our Seaplane with another following in the distance

Major Briggs is sitting beside me and he comforted me by remarking that if the plane overturned it would soon right itself, but it would assuredly not right me. The second plane is just behind and it is also flying to the Great Falls Power



Station. This plane trip took  $1\frac{1}{2}$  hours, in most favourable weather. We passed over the Rapids and banked right round by the Falls, arriving at the landing stage at 4 o'clock.

Mr. Caton, Manager, and Mr. Ferguson, Chief Engineer (both Scotchmen) met us and took us along to the Power Station. The Manitoba Power Company have presently three units working, each 28,000 H.P., and they expect to put down 14 of these units. They supply Winnipeg, about 100 miles distant, at from four-tenths of a penny to 2d for the ordinary domestic consumer. This is wonderful value and when the 14 units are completed, a fortune will be made. The Company have purchased the Falls outright so that their position is stable.

After an excellent dinner, I boarded a petrol driven tram car, running on rails, this outfit being the property of the Manitoba Power Co., and was accompanied by the courteous officials to Lac du Bonnet, where three powerful motors were in waiting and I bumped along a most uneven road for 90 miles to Winnipeg where I arrived at 11 o'clock in the evening, dirty, unkempt and covered with mud from top to toe.

I was afraid the Alexandra Hotel management would have put the hose on me, but I slipped in all right, had a hot bath and went to bed, sore and weary, but with unforgettable recollections of an unprecedented and exciting experience through the Wilds of Manitoba.

## WINNIPEG.

*Sunday, September 4th.*

This morning I rose thoroughly refreshed at 7-30 and had breakfast at 8-30.

I have really been surfeiting myself throughout this pilgrimage (we all have), and I started the day with a resolution to reduce my rations. Accordingly I broke my fast with a tiny portion of fruit, then about two inches of fish, with one cup of tea.

By lunch time I was starving and my resolutions went "by the board." After all, why should I restrict myself in anything during a holiday?

We all have our weak moments and if we become at any time obsessed with the idea that a degree of self-sacrifice is essential to our physical welfare, the plunge is often recklessly taken. Regret immediately follows, and the void filled in haste, often to repletion.

The battle between mind and matter was once more in evidence and, this time, the *former* was routed ignominiously.



I just had a look round the beautiful city of Winnipeg in the forenoon and called for an hour on Mrs. Easton, who was Miss Maggie Millar in the old days of Wellpark Choir. She was my principle contralto then, and 15 years ago she came out with her mother and two daughters after her husband died, and now holds an important post in a big warehouse in Winnipeg. Her eldest child Betty is a stenographer and the younger one, Vina, is at school. Mrs. Easton has successfully overcome the many difficulties that strewed her path when she first took up residence here and through sheer dogged determination she won her way to a lucrative post in the city. With her two children and her aged mother she resides in a nice little flat at 11 Stuart Court where I found them all well and happy. Needless to say, I received a most cordial reception.

I did not see as much of Winnipeg as I would have liked, but my air trip detained me for two days and accordingly I lost that time before being able to re-join the main body of the Congress forces.

I rushed through "the sights" as quickly as I could, however, when I did arrive, and found the city in every way attractive. When Manitoba became one of the Canadian Provinces, Winnipeg was practically a frontier village of 200 inhabitants, and bore the name of Fort Garry. To-day it is a modern city, the capital of Manitoba, with a population of 300,000. Its streets are broad and there are many magnificent buildings—public, industrial, commercial, financial—and private dwellings. The Red and the Assiniboine Rivers, the former having its source in the Dakotas, and the latter named after the Assiniboine (Stoney) Indians, have their confluence within the city boundaries. Winnipeg derives its name from the Cree Indian words, "Win" Muddy and "Nipiy" Water, which was applied to Lake Winnipeg long before Manitoba's capital came into existence. Indians ascribe the muddy character of the lake to a Deity who in some way having annoyed her, was taken captive by an old woman, who so besmeared him with every kind of dirt that it required all the water in the lake to purify him. By way of retaliation, he has ever since employed himself in keeping up the discoloration occasioned by that event.

The very earliest name that the site of the present city bore was "Les Fourches," imparted by the French voyageurs, and even after the establishment of our own Colonists, it was commonly known as "The Forks." Historically Winnipeg is a city of considerable interest. From 1735 there was continual friction between the French, the Indians, the North West Company, and the Hudson's Bay Company. Fort Rouge was established at the junction of the Red and Assiniboine Rivers in the year 1735. Then came Fort



Gibraltar, then Fidler's Fort, then Fort Douglas, and Fort Garry. Strife between the rival colonists was continuous and like the Kilkenny Cats they practically exterminated each other. Out of the ashes Fort Garry was re-built in 1822 by Sir George Simpson, Governor of Hudson's Bay Company. It was enlarged in 1835 and again in 1850. The Fort was sold and demolished in 1882 except the north gate-way, which in 1897, was presented to the city of Winnipeg by the Hudson's Bay Company. In the afternoon of our visit, on the invitation of this Company, we were entertained to tea in the Gardens of Fort Garry, inside the old gate-way. It appeared to me to be an ideal site for military defence.

Winnipeg is the most important railway centre in Western Canada, and as far as actual trading is concerned is the largest grain market in the world.

The city is particularly well situated with regard to Hydro-Electric energy for power, lighting and domestic purposes, this energy being in the region of 172,000 Horse Power.

Among the imposing public buildings, the Provincial Legislative structure, with its lofty dome, The University, affiliated with many institutions such as the Wesley College, Manitoba College, Manitoba Law School, Medical College, and the Agricultural College, are to my mind wonders of modern architecture.

In the Legislative Chamber I was struck by the comparatively small number of seats available, but was informed that the Members of the Province of Manitoba comprise a very small body indeed.

Owing to my absence *above the clouds* I missed being included in a panoramic photograph of the Congress members, but the loss was theirs.

At the Luncheon held at the Fort Garry Hotel (belonging to the Canadian National Railway this time) the Mayor of Winnipeg, Mr. Webb, told us straight that only trained men from the old country were wanted in Manitoba. We could keep all the other kind, but if we had any spare money it would be well spent in exploiting Canada's resources.

It was a sensible, stirring address, and I am convinced that Mayor Webb knew what he was talking about.

A Congress was held on the day before my arrival in Winnipeg, and several interesting papers were read. Since I came home I received six large volumes of the entire proceedings, including all papers, so that I can have them for reference at any time.

I may perhaps take the opportunity sometime to ponder over these records as a *soporific* if I need one in the dead hours of the night. In the evening there was a farewell Banquet given



by the Congress members to their hosts, at which function His Honour T. A. Burrows, the Lieut.-General of Manitoba, The Hon. John Bracken, Premier of Manitoba, and the official delegates and members from overseas, were present.

The usual felicitous speeches were on tap, as were also samples of Canadian rye whisky which, when partaken of, seemed to be painfully like methylated spirits. I am afraid that those who indulged suffered for many hours with an uncomfortable rise in temperature on the part that the vile fluid touched. I have no doubt, however, it would be quite efficacious if applied outwardly, in cases of rheumatism and kindred troubles.

To-morrow we leave Winnipeg for Estevan. The route followed by the trains is through the "Prairie Provinces" of Manitoba, Saskatchewan, and Alberta, aptly termed the *Granary of the Empire*. As we approach Estevan, early in the morning, the railway follows for many miles the beautiful Souris Valley; this valley contains a great quantity of lignite coal and in 1880 mining was commenced. The price paid for this coal delivered at Winnipeg was forty dollars per short ton and now there are many large collieries in the district supplying coal, with a steady increase in output, to certain markets in Saskatchewan and Manitoba.

Mr. and Mrs. MacKay, Mr. and Mrs. Morrison, Mr. Hamilton, Jean and the diarist are sharing together our pleasures and troubles, and each trouble seems unaccountably to convert itself into a pleasure, in the long run. Such is the blessing of bearing one another's burdens. To-morrow we shake hands with an old friend, the Coal Mining industry.

We leave our many warm hearted friends in Winnipeg with genuine regret. "*Bon Jour, Winnipeg,*" I would like to repeat my visit on a future early date.

## *ESTEVAN, Saskatchewan*

*Monday, September 5th.*

We arrived at Estevan about 8 o'clock a.m. and found that several trips to the Collieries had been duly arranged. I chose to go to the Western Dominion Collieries, but I was disappointed with the plant.

I was taken first of all to the briquette section, but this proposition is a failure. It had been carried on by some Germans who expected to make a success of low temperature carbonization. Their laboratory tests were all right, but when the retorts were erected the same results were not accomplished, owing, I believe, to the leakages of some essential



gases which were perfectly controlled in the laboratory. The same problem is as yet unsolved throughout the mining areas of the world.

Then I went down the pit. They work a 10 ft. seam stoop and room, and the material produced is lignite, which is an intermediate product between coal and peat.

Mr. Wilson is the Manager and he and his assistants were most attentive and cordial.

I was shewn an electric loader which carried the coal on a belt (on the surface) to the wagons. Underground a Jeffrey chain heading machine was in operation, also an Ingersoll Rand rotary drill. The conditions were excellent and none of us learned anything new about mining.

Thus, for the first time during my tour I witnessed the development of coal mining in Canada. In this district, all the carbonaceous measures have only reached the stage of lignite. The seams, generally speaking, are from seven to fifteen feet thick, of poor quality, mined at a cost of about one dollar per ton and sold at two dollars, which is from an Israelitish standpoint, equal to 1% profit. Clay is found in abundance on the top of the lignite and the process of working was, to my mind, quite practical and economical. I saw a steam shovel slicing off about fifteen feet of clay, swinging its full skip round to a waste heap—rapidly coming back for another mouthful, and, in so doing, laying bare a fifteen feet lignite seam which looked wet on the surface and in appearance poor in quality. This lignite, I am informed, contains up to 33% water and 20% ash, thus being extremely low in calorific properties. Estevan should do still better, I imagine, in brickmaking, but for both coal and bricks the transport charges outside the immediate environs of the town make any extensive development in this connection a serious problem.

After lunch, at the different points of interest where each of us happened to be, we spent a couple of hours enjoying the beautiful scenery of the Souris Valley. At three o'clock we found ourselves in the Ladies' Club at Estevan where tea was provided and we were waited on by a bevy of pretty maidens. They wanted us to wait and dance in the evening, but we had to board the train at four o'clock.

I was introduced to the Mayor and Magistrates of the town and had a long chat with Mr. Dunbar, the editor of the *Estevan Mirror*. He presented me with a special copy of his journal, together with a "Giant" lead pencil as a souvenir of my visit.

On the front page of the "Mirror" a full description of the Congress movements was given and a racy editorial dealing with the rise and progress of Estevan had been written for



our particular benefit. The editor appeared to me to be a fervid patriot and cordially shook hands with scores of our members of Congress. He pled with us to send thousands of our countrymen out to Canada and particularly to his own district in order to save them from being overrun and dominated by aliens. Such enthusiasm is good to witness and before I left, he said he felt quite convinced that our visit would be productive of much good. "We have been waiting," he declared, "for twenty years on a body of accredited representatives from the old country, such as you are, and with unbounded gratitude we welcome you with open arms, and with affectionate fraternal greetings." He was accompanied by his very accomplished daughter, Miss Dunbar, who later on, with a host of similarly winsome girls, accompanied us to the station and gave the younger men of our party something to think about during the remainder of the journey. I am afraid some of our youths left their hearts behind them at Estevan.

Promptly at four o'clock we left this little hive of patriotism and in a short time will again be in the middle of prairie land.

Description of route to Banff Springs will be detailed in my next epistle.

To-night we put back our watches one hour to conform with Mountain Time.

## *FROM ESTEVAN TO BANFF SPRINGS.*

*Tuesday, September 6th.*

The first train stop after leaving Estevan was Moose Jaw, situated right in the middle of the wheat growing country. Moose Jaw is necessarily one of the largest milling points in Saskatchewan. There are scores of mills, together with a Dominion Government Interior Terminal Elevator with a capacity of 3½ million bushels of grain, just west of the town. The unusual name of Moose Jaw is a contraction of an Indian word meaning "The-Creek-where-the-white-man-mended-the-cart-with-a-Moose-Jaw-Bone" an illuminating light on an episode of pioneering days.

Regina, 42 miles east of Moose Jaw, is the capital of Saskatchewan. Regina was formerly the capital of the North-West Territories, and for over forty years was the headquarters of the Royal North-West Mounted Police, one of the most famous forces in the world. Their exploits have been



chronicled in both fact and fiction so frequently that they have become, to a large section of the adventure reading public, veritable heroes of the wild Canadian prairies.

The moon is shining brightly to-night, and I stayed in the observation car long after we left Moose Jaw. If you can picture hundreds of miles of prairie land covered with waving grain, tinted by the subdued light of the moon, you may visualize the present scene to the full extent of your imagination only, but it ends there. To see is to understand. I see, but the immensity of the panorama overwhelms my senses, and I can only gaze and wonder, with a deep sense of gratitude that I have the privilege of enjoying, quite alone, such a feast of natural beauty, enchanting and unspoiled. As the train sweeps onwards there is an ever changing background of unimaginable splendour which weaves a fresh pattern of marvellous embroidery with every mile neath the silvery moon ; the kaleidoscope of shaded colours, old reds, delicate pinks, dark yellows and purplish maroons completing an atmosphere of wonderful harmony. This experience seemed to satisfy my innermost being, as evidently for the moment I possessed a mental hunger deep and hitherto unsuspected.

" Now the day's violet is cloud-tipped with Gold ;  
Now dusk most silently fills the hushed Sky,  
With other wings than birds."

Heigh-ho this is indeed a reverie.



R. L. P. B. and Jean in Cree Indian Costume



Moving from beauty to beauty Swift Current (Sask.) is passed during the early hours of the morning. It was named by the Railway Company in 1882 when the line reached the site of the town and is a translation of the Indian name of the River Saskatchewan.

Nestling on the south fork of the Saskatchewan the town of Medicine Hat had the honour of a visit from us for half an hour, but only a few of our passengers were awake to receive a most cordial greeting from the railway officials. Here we felt a distinct "tang" in the air, being the effect of the upward pitch of the still distant mountains.

Medicine Hat is a translation of the Blackfoot Indian name of the place, i.e., "Saamis," meaning the "Headdress of a Medicine Man." The town is the centre of an important natural gas field that was at one time considered inexhaustible, but the flow has diminished considerably of late years and steps have been taken to limit the operations and thus prolong the supply. There are 22,000 inhabitants in this prairie town which, by the way, is lit by electricity throughout. Consequently, I don't understand for what purpose they use the gas, and I am afraid the bulk of it goes to waste. Calgary, I believe, is the next stop.

## ESTEVAN TO BANFF.

*Wednesday, September 7th.*

I retired to rest in the early dawn after leaving Medicine Hat behind and rose in time for breakfast in the train at eight o'clock. A further dainty was added to our menu this morning in the form of a species of trout, kippered, called the Golden Eye. This particular fish is found in Lake Winnipeg and as the waters of the lake are slightly alkaline, a piquant and appetising flavour delights the palate.

About noon the train came to a halt at Calgary which was originally intended to be our rendezvous for a day, in order to visit the Prince's Ranch, but owing to the preceding few days' incessant rain, the roads had been rendered impassible and this titbit in our itinerary was reluctantly abandoned. It was a huge disappointment, but every precaution is evidently being taken to avoid any semblance of accident, or even the possible discomfort of a "stick up" in a quagmire.

Calgary is the largest city in Alberta and is pleasantly situated on the Bow and Elbow rivers. The Rockies are visible from its environs, and the air gets perceptibly cooler as we step from the train. In 1883 Calgary was a mere village



and it developed into a city of 75,000 inhabitants in 1894. Here again hydro-electric energy is abundantly in evidence, to the extent of 32,000 horse power, with an additional 170,000 horse power within 65 miles of the city, utilized principally by large manufacturing concerns, grain elevator plants, and by private users. Natural gas is piped from the Turner Valley field 40 miles distant, the flow of this gas being sufficient to supply a much greater volume than Calgary can consume at present. Within the confines of the city there is a station occupied by the Royal Canadian Police, and a Sarcee Indian Reservation is only distant about seven miles. My stay was all too short at Calgary, and I am sure I missed a most interesting part of the trip, but the "All Aboard" cry was insistently broadcasted about mid-day, and I obediently fell into line.

A good lunch put me into a more resigned frame of mind and I soon forgot my disappointment in the magnificent scene of Arctic beauty into which I immediately entered.

I am at last at the gates of the SWITZERLAND OF CANADA. The air has become intensely cold. On each side of the observation car the great massive Rockies appear as a frame to an exquisite picture, the chain of snow capped peaks completing the never to be forgotten panoramic vista. I see the Cascade Mountain with its peculiar sharp toothed ridge of pearly grey rock.

Further on towers the Fairholme Range dazzling with brilliant colours, subtly changing as we speed onwards. As in a dream, I feel that I am indeed entering into a fantastic chimera of flower decked Alpine meadows, shadowed by many gigantic guardian promontories with their tremendous caps of eternal snow, and innumerable silvery icy cascades that fall like crystal fringes into the unfathomable depths of the Moraine below.

"Grey ledges overhang from dizzy heights,  
Scarred by a thousand winters and untamed."

I gasp with amazement at the glorious transition from the level prairies to the gleaming, marvellously beautiful facade of mountain scenery. Some magic carpet has surely wafted me to this marvellous diorama which, I learn, unrolls for 200 miles from the eastern gateway of the main Rockies to their western portal.

At 4 o'clock the train arrived at Banff, and I lost no time in securing my baggage and wending my way up to the Banff Springs Hotel. A most comfortable bath bedroom was allotted to me in an annexe, as the hotel was overcrowded, but I was fortunate in having my sleeping quarters away from the hotel, as the atmosphere in the main building was oppressively warm.



## BANFF.

It was rather difficult to tear myself away for a few hours sleep from the glamour that continuously is associated with "Banff, the Beautiful," but tired nature duly asserted itself and I slept soundly on the evening of my arrival from eleven thirty till seven o'clock next morning.

From the luxurious lounges of the hotel, to which I was attracted immediately after breakfast, a wonderful panorama of Alpine beauty revealed itself. A huge bow window overlooking the giant ravine that lies between Mount Rundle and the Tunnel Mountain proved an unrivalled viewpoint, and the world famous, superb, and enchanting picture of the Rockies lay before me. Dense green masses of pine, and spruce, sharp, scythe-cut by the sparkling Bow and Spray rivers, appeared as a gorgeous setting to the surrounding snow-clad sentinel peaks of Mount Peechee, and Mount Inglismaldie, the charm of the whole picture being enhanced by impressive contours of barren hills. It was a feast of lovely contrasts which made a radiant and satisfying picture of superlative beauty. Had Banff not become famous for its beauty, it must have become famous for its hot springs which are among the most important in the world.

The Banff Springs Hotel has its own splendid Sulphur Swimming Pool, but I only tested the bathing facilities there once, as the air on emerging from the water was a bit *too* nippy for me.



View from Banff Hotel



During the week previous to our arrival a great Highland Gathering had taken place and, as a matter of fact, when I entered my bedroom in the annexe a full highland costume, complete with sporran and the inevitable bagpipes, was lying on my bed ready to be packed. The sturdy Gaels were leaving the district the same evening.

An Indian pow-wow was on the programme for our sojourn in Banff, but the inclement weather chased the Indians with their squaws and papooses home to their encampment, in hot or cold haste, whatever "parlance" the reader of these pages cares to adopt.

I wonder what these Highlanders and Indians thought, when they faced each other in the full magnificence of their respective characteristic warlike dress.

It is rather sad to think that the Aborigines of this mountainous region should be scared by the weather, however inclement it may have been. Civilization has undoubtedly spoiled their physique. Living in improvised encampments, comprising comfortable wooden huts artificially heated in the winter—these Indians have gradually left behind their previous spartan conditions and their bodies have become susceptible to the slightest fall in the temperature. Hence it is that consumption is prevalent among all the Indian tribes throughout Canada and I would not be surprised if in a few years this noble race of hardy Redskins will have ceased to exist.

After breakfast I joined a party of motorists bound for Lake Louise. On the road we passed the famous Johnston Canyon, right along the Trans-Canada highway, and for 25 miles from this point the scenery on each side beggars description. We see the imposing battlements and serrated cliffs of Castle Mountain on the right, and the snow capped dome of Mount Temple on the left, a view so beautiful that no one who visits the Canadian Rockies can afford to miss it. As we skirt along the edge of a deep pine forest, a fact which reveals itself soon is the abundance and fearlessness of the wild life. Mountain sheep, those shyest of wild creatures, lift their heads and gaze unconcernedly at the intruder, and then go back to their quiet feeding. A deer will flash through the thick tangle of the forest, and a fine bull moose may be observed trampling through the thick underbrush towards the river, while a black bear actually ventured out into the road to stare and wonder at our car and its human freight. We stopped the car and Bruin gently ambled up to the side and standing on his hind legs begged for biscuits, cake or sugar, which he greedily devoured. When offering these dainties, care should be taken not to withdraw the hand. On one or two occasions that I heard of, a timid withdrawal proved disastrous, as naturally anticipating the loss of the luscious morsel, the paw shot forward to grasp it and injury



to the hand or arm of the giver was inevitable. One case I heard of took place the previous year when a girl's arm was severely mauled, and in our car a fair young damsel had the misfortune to leave the sleeve of her coat in the bear's claws owing to a similar nervous withdrawal at the crucial moment. I was glad it was no worse. Poor simple brutes ! They mean no harm, but don't know any better.

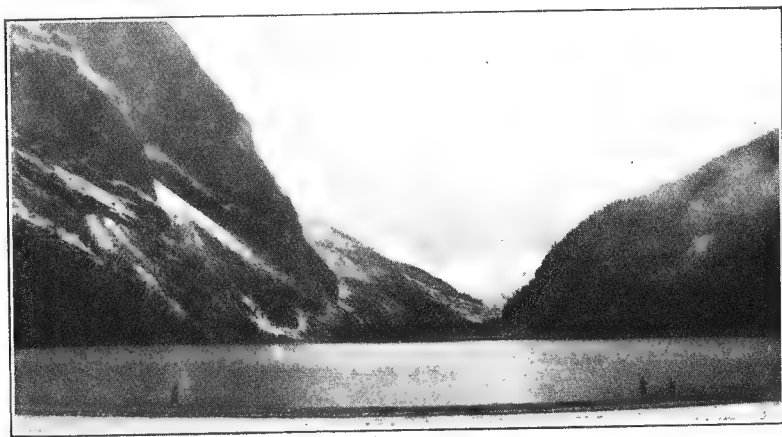


Bears on edge of forest *en route* to Lake Louise

On we went higher and higher into the denser snowy region, and it was as well that we had donned our warmest clothing, as the atmosphere became bitterly cold. We duly arrived at Lake Louise in time for lunch and here again I was transfixed with amazement as the entrancing view from the hotel veranda presented itself. I simply cannot find words to describe the grandeur and loveliness of Lake Louise. There it lay in all its pristine beauty, a lake glistening in the noonday sun, stained rosepink, like an alabaster cup of wine held high in the snowy hands of the mountains which rise around it.



These mountains, Fairview, Aberdeen, Lefroy, Victoria, Devils Thumb, and a dozen other glorious peaks sentinel the valley which leads from the Chateau Hotel at its northern end right up to the Plain of the Six Glaciers, where the ice-streams flow down between the lofty battlements.



Lake Louise—View from Hotel

Lake Louise is a lake of the deepest and most exquisite colouring, ever changing, and defying analysis. She has many moods and they are full of surprises. It is impossible to exhaust the infinite variety of these moods although one may watch her from hour to hour, day to day, moment to moment.

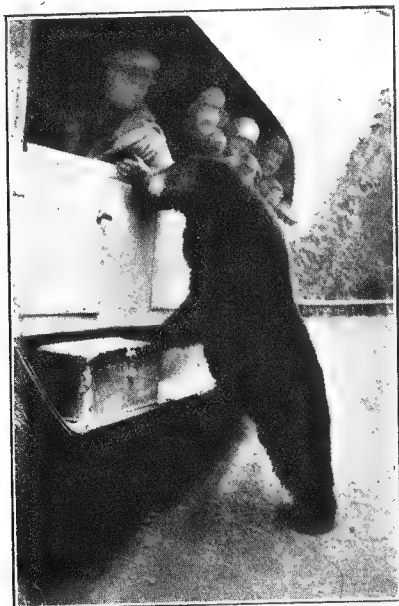
In her depths are reflected sombre forests, snow crowned peaks and the great vault of heaven responds to every subtle change of atmosphere. If watched from the rose of dawn to the colour of the purplish twilight shadows and thence to deep azure struck with stars, there will always be an impression of a series of pictures each of which is more beautiful than the one preceding. We spent a delightful time at Lake Louise and saw several glaciers pressing down from the eternal snowcaps, tearing the rocks as they came.

Trail riding was taken advantage of by the younger people, and it was evidently an enjoyable experience. The ponies are very gentle and quiet, and even the most timid and inexperienced rider need have no fear to mount one of them. Indian guides accompany all trail parties. The surrounding country is enchanting.

Within a short distance from the hotel I came across anemones, sunflowers and asters, carpets of red heather and creeping bearberry, and all kinds of strange mountain flowers, the fragrance of which appealed to me as being more virginal



and fresh than that of many lowland blossoms. I saw Alpine harebells, Arctic poppies and bordering the lake grew little pink swamp-laurels, dainty wintergreens and fragrant orchids. What a Garden of Eden!



Bear encountered *en route* to Lake Louise

Thus I spent the afternoon happily, and incidentally I secured a number of good snaps of this beauteous district. At 5-30 I rejoined my party and we were soon merrily rolling along the same route by which we came. Our Bruin friend was again waiting for us but we passed by with a friendly salute without stopping.

In due time I was again at Banff Springs Hotel, enjoyed a bath and was sitting at dinner about 7-30. I had the pleasure of sitting at the same table as the Prince occupied the previous week. The waitress told me that he only drank iced water, but as he held a pow-wow of his own in his apartments upstairs later on, I feel convinced that something more stimulating was on tap.

These waitresses were most superior girls and when I mentioned this outstanding feature of our table service to the head waiter, he informed me that the girls were all McGill University students, and they were sent to the different hotels every season by their parents, to broaden their outlook in life



and enable them to appreciate the work entailed in earning a dollar. Male students also take their share in working for a living during the recess, and their special province lies in motoring excursionists to different places of interest. This is an admirable phase of student life in Canada and is worthy



Mr. MacKay, Mrs. MacKay, Prof. Moss, Mrs. Morrison, Mr. Hamilton,  
at Lake Louise

of emulation in all countries. A menial course of this kind is bound to inculcate self reliance, and impels more consideration for others who have not been so fortunate in their opportunities to secure a similarly advantageous education.

The undernoted menu gives an indication of the type of luncheon which was specially arranged for the members of our Congress at Banff Springs Hotel :—

#### TABLE D'HOTE LUNCHEON.

Philadelphia Pepper Pot		
Consomme Vermicelli		
Jellied Consomme in Cup		
<hr/>		
Fried Silver Smelts	Tartan Sauce	
<hr/>		
Fried Eggs, Americain		
Escalloped Turkey Joints, Mexican		
Grilled Pork Tenderloin, Charcutiere		
Roast Loin of Beef, Pan Gravy		
<hr/>		
Baked Summer Squash, Butter Sauce		
Boiled or Mashed Potatoes		
<hr/>		
Pineapple Pie		
Orange Sherbet		
<hr/>		
Tea	Coffee	Milk



The usual procedure of meals is as follows :—A menu card is put in our hands, containing a bewildering array of dishes, known and unknown, and we have to select what appeals to us. In about fifteen minutes the entire selected course is displayed on a side table, and each consecutive course is served with the utmost expediency. There is no pause till the last item is put on the table, and the only delay that takes place is at the beginning, as the waiter or waitress has *to be annexed*. They do not come forward voluntarily. The bashful diner consequently is, as a rule, neglected, but, needless to say, I am not afflicted with shyness.

Soup is invariably served in cups with two handles. Olives, walnuts and celery precede lunch or dinner as a rule, and these meals finish up with salad. Coffee and tea are on the table *any time* during the meal.

The hotel was occupied otherwise by the Vermont Insurance Company, U.S.A., who were holding a Convention which occupied several days. During my peregrinations across the Dominion, Conventions seemed to be the order of the day, and they doubtless serve a useful purpose, as an interchange of views and ideas take place at their meetings, which are held two or three times each day. I met quite a number of the members of this Insurance Company at the Dance in the evening and it gave me an opportunity of widening my acquaintanceship and extending my knowledge of other business spheres unconnected with my own. Fundamentally, travelling is a *priceless education*.

The Canmore Coal Mines were visited by some of our party but in this district I wanted to forget the sight of a "Whorl" and didn't go.

I now learned that a railway collision had taken place between Banff and Calgary the previous day, with a few attendant fatalities and, as the line was blocked, I concluded that this was the *real reason* for omitting our trip to the Prince's ranch at Calgary. I may say I got this conviction confirmed later.

At Banff there is an abundance of trout fishing, and as at Lake Louise, trail riding was indulged in by many of us who had never been previously astride a horse but the animals looked round and smiled encouragingly on the riders, so that all was well. Our girls made a very picturesque group, dressed in breeches, dashing along the trail, and their silvery laughter and wild abandon became quite infectious.

We were all imbued with the real holiday spirit which never seemed to droop. There was the constant variety of the pleasure of new discoveries every moment, in entrancing combinations of beautiful valleys, glaciers, snowfields and pearly white mountain peaks, which all made a harmonious environment.



To those who followed the trail, their onward course was from beauty to beauty along paths carved by ancient ice cataracts, against a background of wonderful splendour, weaving a new pattern of loveliness with every mile traversed. The sun and the wind they shared as companions and with the blue sky overhead, they were bound to experience a new ecstasy of movement and feel *half delivered from bondage* to the solid earth. I don't wonder therefore that our young trailers became more and more boisterously exuberant as they climbed



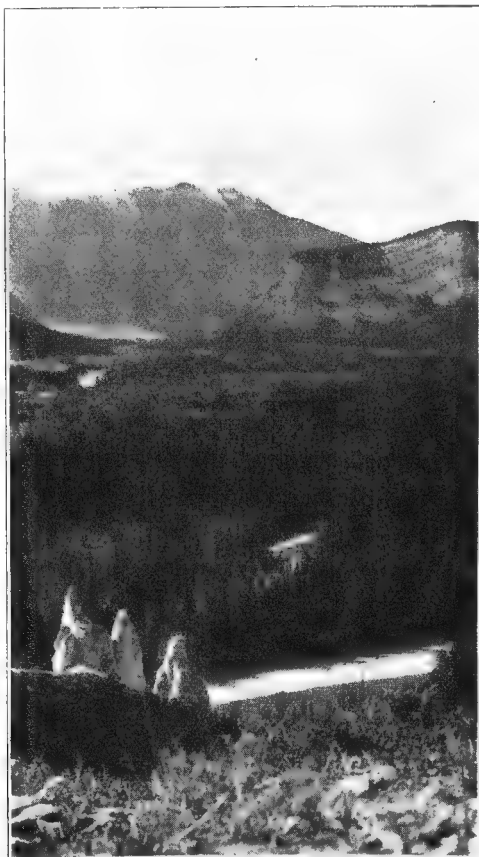
R. L. P. B. in Cree Indian Chief's Costume

the spiral heights in single file procession. I am quite certain, however, that my tramp through the Long Lake Trail, as before described, was a feat which none of the Banff trail riders would *dare attempt*. This is something to crow about.



### *Thursday, September 8th.*

I am still at Banff Springs and am enjoying a blessed rest from the continuous round of travelling. After breakfast this morning I had a tour round the interesting parts of Banff and saw the reservation where all kinds of wild beasts were enclosed. These included buffalo, deer, bears, wolves, porcupines, moose and elk, in an untamed condition. We were



Hoo-doo Stones

not allowed to get out of our cars. Further on we saw the Indian encampment redolent with squaws and papooses. They are almost white, and are of the "Stoney" tribe, speaking the Cree language.



Then we saw the Hoo-doo Stones, which consist of three pillars rising out of the ground to the height of 20 feet. The Indians believe they contain evil spirits, hence to "Hoo-doo" anybody is *to bewitch*.

We visited the Public Park with its Zoo. It is small, but beautifully kept. It now belongs to the C.P.R. but was originally Government property. So far as I can observe, nearly all the finest hotels (including this one, Calgary and Lake Louise) are C.P.R. property.

Banff is a quaint little village, the main street being composed of buildings constructed of pieces of cemented rock. Banff Springs Hotel is built in this fashion, and is presently being added to, with the object of keeping it open for ski-ing and winter sports. The hotel closes at the end of this month and will not re-open till June, 1928, but when the alterations and extensions are completed it will receive visitors *all the year round*.

The houses composing the rest of the village are constructed of timber with verandas, and the side streets are *no streets at all*, only spaces. During the season the people live on the visitors. There is no agriculture worth mentioning, and from the situation of the district this is not to be wondered at. Banff is 4,625 feet above sea level.

I have spent the afternoon in shopping and strolling about.

The Indians bring in large quantities of furs to Banff and I saw some magnificent specimens. I bought a moose skin jacket and an entire Indian outfit of wearing apparel, beads and all. The more beads that are sewn on Indian clothing the dearer is the garment thus embellished.

To-night I leave Banff Springs with much regret. To my mind it is the most beautiful spot on earth,

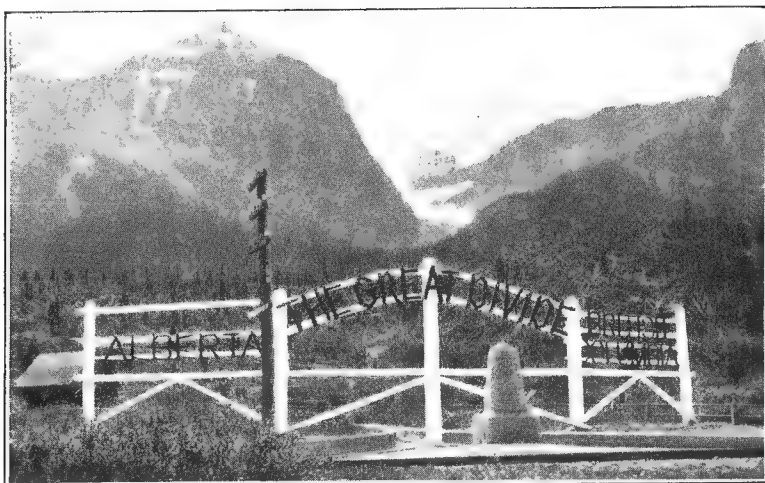
"With snows eternal, muffling its  
Summit, and silence ineffable."

Near Banff, at the summit of the Kicking Horse Pass in the Rocky Mountains, the GREAT DIVIDE forms an interesting boundary between the provinces of Alberta and British Columbia. It is so called because it is the *backbone of the Continent*. The waters from melting glaciers on the east of the Divide form streams or rivers, which eventually find their way across the continent, and empty into the Atlantic ocean, and the waters from melting glaciers on the west of the Divide eventually flow into the Pacific.

In the case of the river flowing to the east, however, I am not sure if it does not eventually empty itself into the Hudson Bay.

*Evening*—At 9 o'clock we entrained for Lethbridge and, at the time of inscribing these memoirs, I am again comfortably esconced in my parlour cabin, everything being found in order, thanks to the indefatigable services of Joe, our smiling coloured train attendant.





The Great Divide

## LETHBRIDGE.

*Friday, September 9th.*

We reached Lethbridge at 5-30 this morning and breakfast was served from 7-30. According to programme, we were to hustle and see all that was possible to be seen in about *three hours*. It proved to be sufficient, however, as there was little of interest to be noted.

We are again in an atmosphere of broiling heat, down in the Plains, in the heart of the coal district. These alternations of cold and heat are very trying, but we are so well looked after, that practically no illness of any kind exists.

I travelled about 8 miles by train to the C.P.R.'s Coal Mine No. 6, which is 400 feet deep. It is called the Galt Mine and despite my previous resolutions I went below with many other sufferers. The seam here is 4 ft. thick and consists of good House Coal with a large percentage of moisture. Acetylene cap lamps are used in the mines, and the weight of these became a considerable burden after I had tramped a mile or two below ground. Once more I swear that *I won't go below again*. I nearly lost the train coming back, and Mr. MacKay and Mr. Morrison were left behind. They, however, came on by next slow train to Blairmore, and I was much relieved. I was wet to the skin with perspiration and had to change immediately. I actually walked three miles underground.

The officials and workmen are nearly all Scots, but as a matter of fact the Indians round about here have in a great measure



annexed such names as M'Kay, M'Pherson, Campbell, etc., in their family nomenclature, so that the great Highland historic family names seem likely to be perpetuated in this locality. Intermarriage with the real Highland settler would do no harm, I think, as the Canadian Indian possesses many admirable qualities and a mixed union should be quite a success from the *eugenic* point of view. Alberta is really the home of SCOTTISH SETTLERS.

## BLAIRMORE.

From Blairmore, which is again higher in altitude than Lethbridge, and consequently cooler, I hastened on to visit the West Canadian coal cleaning plant. This plant is not working at present, but this was just as well for us, as so much dust is generated. The process is only for dry coal as it depends altogether on fans to disintegrate and separate. It would not suit the Scottish coal fields which are mostly wet. The capacity is 150/200 tons per hour. There is a similar plant at McGillivray Creek Coal & Coke Coy.'s colliery at Coleman. The village seems to be alive with Scotsmen. I met a man from Shettleston, three from Glasgow, one from Hawick and one from Kilmarnock. The manager of the Power Station is Mr. A. Watson from Hamilton, Lanarkshire. A good many of the mines here are owned by French people. Most of the others are financed and carried on by the C.P.R. The C.P.R. to my mind are the pioneers of the industries of Canada next to the Hudson Bay Coy., and are a power in the land. Most of the stores for the collieries in this district are supplied by Canada and brattice is the only item that comes from Scotland, *via* Edmonton. I would not trust any of the collieries financially. They can, of course, produce cheaply, but transport to industrial centres is the great trouble, and they are working only half time. Until other industries arise within a reasonable distance the collieries cannot be reckoned a commercial proposition.

The great Land Slide took place in this district in 1903, on the 29th April, my birthday. A large piece of rock slid off the mountain and killed about 80 people. From the appearance of the mountain as it stands to-day I am afraid there will be a slide one of these days from another part. The actual name of the village where this took place was Frank, one mile from Blairmore.

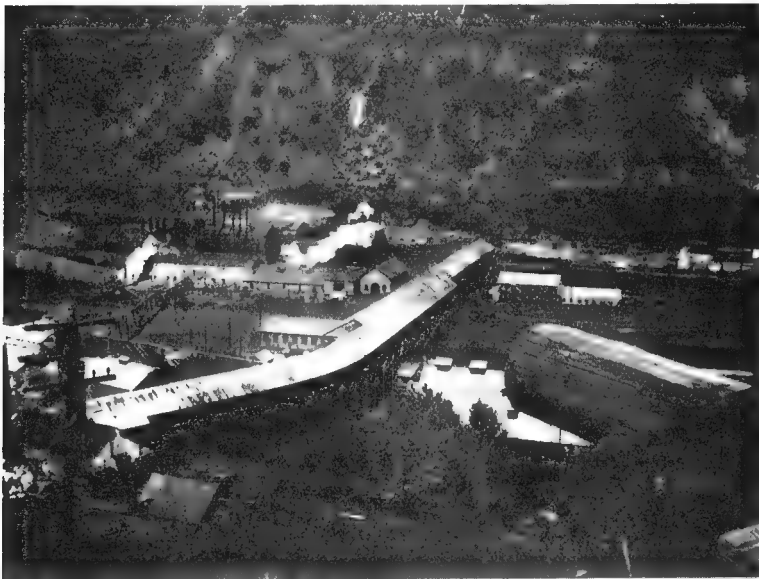
Many bodies are still under the fallen rocks and the little cemetery on the hillside tells its own tale, but the villagers seem to have forgotten the episode and prosecute their daily avocations with the usual *sangfroid* of simple existence and freedom from the responsibilities of the big outside world of which they know nothing.



## FERNIE.

*Friday, 9th September.*

Proceeding by rail to Fernie, I motored to the Power Station at Crow's Nest Lake. The lake capacity is added to by two boilers fitted with burners fed with pulverised fuel. Fernie is a busy little town of 5000 inhabitants, being the headquarters of the Crow's Nest Pass Coal Mining Coy. The collieries are situated at Coal Creek and the coke oven plants at Fernie and Michel. These were duly inspected, but I enjoyed the lunch provided by the Company better than seeing the plant.



Coal Creek Colliery

The rest of the day was spent in motoring round the places of interest in the vicinity and there are some really beautiful views to be had over entrancing mountain passes with miles of lakes and running rivers. In the evening we hied back to Blairmore where we were entertained and generally spoiled by the good people of that village. They made it the occasion of a banquet in the Town Hall. The hall holds about 100 comfortably, but there were about 250 people squeezed in and when the meeting closed we had almost to be shifted with a shoe horn. The village band discoursed music which nearly blew the roof off, but it *helped the circulation of air*.



We enjoyed a very jolly dance after the dinner, and I think I tripped the "light fantastic" with every mother and daughter in the hall. The mother's share was, of course, a *diplomatic move*. The noise of the band was deafening, so that it required closer approximation to one's partner to make mutual conversation possible. This was *not particularly necessary* so far as the *mothers* were concerned.

There is a report of two grizzlies being in the district to-night and mothers are keeping their children indoors. Black bears are harmless, but grizzlies "hug."

Very tired but exhilarated with the recollection of a delightful evening, I hastily inscribe the events of the day in my diary and by midnight I hope to be happily recounting my adventures in dreamland.

When I awake I expect to be at Kimberley.

## KIMBERLEY.

*Saturday, 10th September.*

I arrived early in the morning and after breakfast enjoyed a car tour round the district. I got as far as Cranbrook, 19 miles distant, and en route passed an Indian encampment. The scenery is reminiscent of Scotland.

The day was pouring wet but, as usual, there were dozens of cars at our disposal. I had lunch at the Consolidated Mines Recreation Hall and it was served in the now familiar Canadian rough and ready style.

At these mines where we were entertained to lunch the food was really splendid but all heaped on the table at one time, and we just helped ourselves. Coffee and tea are invariably served midway through the meal.

In the afternoon I visited the Sullivan Mine which is owned by the Consolidated Mining & Smelting Coy., Ltd., Canada, but this is just another development of the C.P.R.'s operations. The ore produced contains lead, zinc and iron sulphides. I was supplied with overalls, rubber boots, pit hat and acetylene cap lamp which, by the way, was of American manufacture and, though sold at a dollar each to the men, can doubtless be bought at much less by the firm. The old country cannot compete here.

The south ore body has been developed to a depth of 700 feet with an average width of ore of 30 to 40 feet. The north ore body which is now being developed promises to be even greater than the other having a width in some places of over 200 feet.



The characteristics of this ore shew a fine grained mixture of galena, zinc, pyrite and pyrrhotite, really a lead-zinc property.

To reach the workings I boarded an electric tram, controlled by overhead wires (Armstrong type), a distance of 2 miles by a tunnel 9 ft. by 12 ft. The rails are 45 lbs. per yard, 3 ft. gauge. Storage battery locos operate where the roof is low in the workings, but overhead wires are in the main roads and, incidentally, are quite unprotected. The cars travelled about six miles per hour, and voltage was transformed from the main feeder from three phase to D.C. current, 250 volts, so that if the wire should be inadvertently touched, electrocution would doubtless claim a victim. Life, however, is comparatively cheap in Canada.

There is an output of 4000 tons per day.

I went up the bottom stope, the route round same commencing with a climb of about 150 ft. by means of wooden ladders, and followed on to a track which I discovered was only fit for a mountain goat to travel. I admit *I was a goat* to attempt it, but I would have been more comfortable had I been a *mountain one*. We had to hang on by ropes in dangerous places and in others I slid down on my back to the bottom of the incline. If I had slipped over I would have dropped into an abyss 300 ft. below. I kept close to Mr. Mungo MacKay and his presence gave me a certain amount of confidence, but I know he had also serious misgivings as to our safety.

Over 50 of us (nearly all mining men) did the journey, and the whole yawning gulf was lit by electric lamps and search lights so that the stupendous and dangerous nature of the workings can be imagined. If tongues of fire combined with sulphurous fumes had suddenly belched out from the darkness of the pit, the effect would be in exact line with old fashioned theories of Hades and its attendant horrors. Once again I broke my pledge to refrain from going down another mine, but it is extraordinary how forgetful one is when interest is awakened. This mine was visited by the Prince of Wales a fortnight ago.

I secured some samples of the ore; it is simply crushed here and sent on to Trail to be smelted.

Looking round Kimberley there was much of interest to be observed. There were some wonderful buildings considering the size of the place. Canadians believe in building magnificent schools. They are generally the best buildings in a village or a city, and education is evidently a feature which augurs well for the future of the present generation. On these lines Canada will be in safe hands in the days to come. *En passant* I may mention that there seem to be no postmen in small towns. All householders have a box in the Post Office under



lock and key. Every morning letters are called for, and they are always found ready in the boxes after a certain hour. Letters are also handed over the counter to other residents whose correspondence may be desultory.

After dinner in the train we were all asked to the mine encampment to a dance and it proved very enjoyable. The Men's Recreation Hall was requisitioned for the event and the floor was splendid.

The music was quite up-to-date and there were dainty partners for all. Those who didn't dance had a good time with skittles and other games, and the fun continued till 11-30, at which hour we had to be thinking of our night journey, and consequently had perforce to trek to our respective trains. The hustle is still on us. In the early morning our train is due to arrive at Kootenay Lake.

When I once more boarded the train and entered my sleeping quarters, I found Mr. Morrison soundly sleeping aloft and after, with difficulty, removing some *chewing gum* from the soles of my bare feet (this commodity being purposely left on the cabin floor by the aforesaid Mr. Morrison to harass my movements in undressing), I soon sank into blissful repose, but not before quietly resolving to be avenged on the unconscious gum chewer.

## KOOTENAY LAKE.

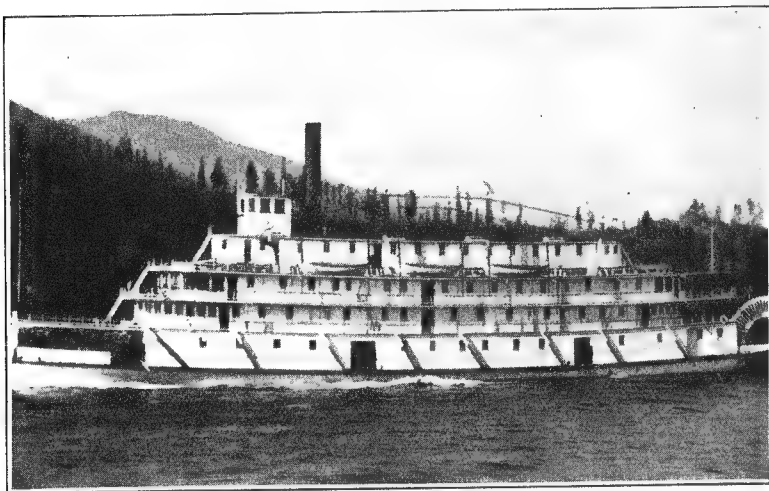
*Sunday, 11th September.*

This morning we arrived at Kootenay Lake, landing at 9 a.m., being 3 hours late. The weather has been bad for two days and it pelted a hurricane all night and during the most part of to-day.

A rather alarming mishap took place when approaching Kootenay Lake Landing. The "Red" train which preceded ours (the "Blue" train) had a narrow escape from being derailed. A Land Slide had occurred a mile from the station and several large boulders lay across the line. The cow catcher in front of the engine caught the largest boulder and the former was crumpled up. Both rails were broken, but the heavy engine kept the track and the train was quickly stopped, as it was going only 20 miles per hour. If the "Red" train had been going any pace it would have been thrown down the ravine 80 feet below. We on the "Blue" train were coming twenty minutes later at 55 miles per hour, but the officials of the "Red" train were on the alert as they ran back and obviated a possible rear crash by placing detonators on the line. Another detachment of trainmen continued the backward rush, and frantically waving red flags, helped to arrest



the speed of the oncoming "Blue" train which was duly stopped with just a narrow margin of safety. *It was a close shave.* A few passengers were shaken but there was no one injured.



S. S. "Nasookin"

We passed on from the train to the lake (Lake Kootenay), boarded the s.s. "Nasookin," and started our trip down to Nelson. The surrounding hills reminded me very much of Clyde scenery but the view was spoiled by the rain. The boat is a four decker with paddle at stern. This suits the shallow parts of the lake as draught is only 6 feet. It is, however, a very comfortable and steady steamer and the day was quite enjoyable.

The trains were taken over in their entirety by barges across the water to Nelson; but the engines were left behind. It was a novel and interesting accomplishment, but nothing seems to daunt the Canadian when a difficulty has to be overcome. I descried the lengthy trains on these barges from my viewpoint on the upper deck of the "Nasookin" and the impression on my mind was that two prehistoric amphibians were following in our wake.





Train Ferry on Kootenay Lake

## *BLUE BELL PIER.*

We stopped for an hour at the Blue Bell Pier and visited the Blue Bell Lead & Zinc Mines. These are just drifts cut into the rock, the outside having the appearance of a stone quarry or Glory Hole. The drifts are on a slope of 30 to 35 degrees and go down to about 375 feet below the level of the lake. Everything was very primitive, wooden pit head, and wooden shutes. The ore is sent to Trail for treatment. This is one of the oldest mines in the Dominion and is said to have been first exploited by Indians.

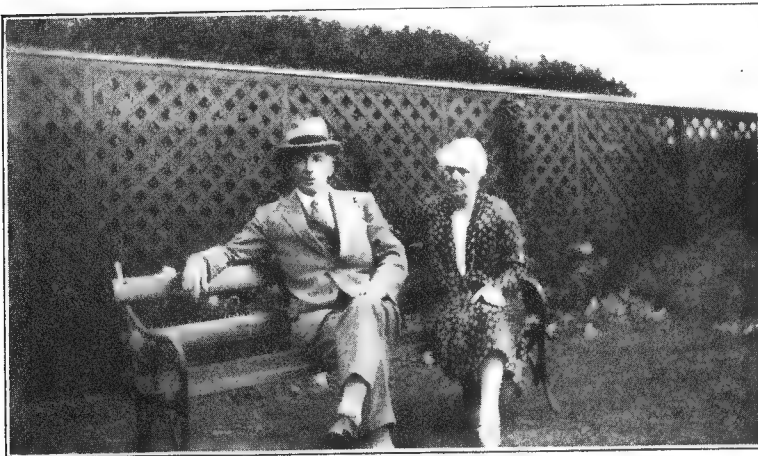
The works orchestra met us when we arrived at the pier and gave us a hearty discordant musical welcome. There was certainly more zeal than harmony in the performance, but there was no blinking the fact that the players were in dead earnest. The composition of the band included two fiddles, one cornet, one bassoon, a kettledrum and a big drum. "Charlie," the works foreman, acted as leader, and the blast of sound was unforgettable. The entire encampment turned out eventually and gave us a noisy send off when leaving. "Charlie" joined the ship with his musical retinue and came on to Nelson with us. We were vastly entertained during the remainder of the sail with strident musical selections in ceaseless sequence.



## NELSON, B.C.

We arrived at Nelson, B.C., about five o'clock, and inspected the Power Station which supplies the mines and the town of Nelson. Mayor M'Donald of Nelson is a Scotsman and every second family here is Scottish. The rain came down in torrents but carriages were waiting to take us to the banquet aforementioned, which was given by the town in our honour. Four hundred sat down, and the cooks were all Chinks. The food was splendid but it was served in "tapsalteerie" fashion. We started with corncobs, tomatoes and cold meats. When the cold meats were dealt with potatoes came into evidence. Then followed tea and coffee, then soup. Salmon came next with sweets and ices. It was like a *dog's breakfast*. What was ready was put on the plates first. The large kitchen was visible from the dining hall and Chinamen seemed to be buzzing about by the score, each getting into the other's way, but imperturbably smiling all the time. "Charlie" was one of the honoured guests, and during the course of the meal he suggested that he was very fond of corncobs, and we piled them on to him. When he finished his sixteenth I left subsequent counting to his less astonished messmates.

It was quite a good rough and tumble show all the same, and at the close of the function, the chairman calmly announced that the road to Trail had been *washed away* by the torrential rains. The visitors from Trail were consequently obliged to shelter with us in the Congress trains overnight. This was one of the few opportunities we had during our trip to extend our hospitality to our warm hearted Canadian friends. I left "Charlie" still at the table devouring corncobs.



Mr. and Mrs. Gilbert Morrison



Mr. and Mrs. Morrison leave us in the morning on their return journey, and I am more than sorry they were unable to accompany us on the entire round trip. They at all times were charmingly sociable, and I shall miss them terribly. Lest I might never see Mr. Morrison again, I forgive him for *studding my bare feet with chewing gum* in our cabin of the "Blue" train. I sincerely wish them both *Bon Voyage*.

### *Monday, 12th September.*

I saw Mr. and Mrs. Gilbert Morrison away on the "Nasookin" on Lake Kootenay this morning at 6-30. They are now on their way home and will doubtless forestall me by several weeks in describing to our many friends the principal incidents of our wonderful tour.

The city of Nelson which we are on the point of leaving is beautifully situated on the west arm of Kootenay Lake. Its existence dates back to the mining boom of 1889, and it is to-day the centre of the mining industry in the southern interior of British Columbia. There are still great possibilities for the mines in this district, as immense ore bodies are awaiting further development, and this can only be accomplished with capital and intensive exploitation. I see hundreds of square miles of mineral bearing mountains round about me of which the potential wealth has not been gauged. Why pay millions per annum in dole money when there is a chance of restoring self respect and ambition to the countless thousands in the mother country, who at present spend most of their time in "sitting on their hunkers"? Capital, brains, and driving force are insistently required to solve the problem. The Dominion Government are *eager and helpful*. The British Government seem blind to the fact that the evolution in the home industry necessitates wholesale emigration to such a district as Nelson. Failing private enterprise, our Imperial Government should, in my opinion, prospect and secure concessions throughout the length and breadth of Canada. Put these concessions in charge of hard headed *capable Scottish mining engineers*, and draw on the multitude of unemployed in this country for labour. Why cannot we wake up?

LUMBERING—Throughout Kootenay and adjacent to Nelson, lumbering is also an important industry, products in this connection being shipped to the prairies, Eastern Canada, and to the United States. White pine is very abundant and, on this account, a large match-block factory was built at Nelson in 1921. Red cedars are also plentiful and from these, both lumber and shingles are obtained. Vast stands of pulp timber, hemlock and spruce, are strategically situated both as to railways and waterways, and they only await the establishment of a pulping plant to use this material up.



FRUIT GROWING—Another industry calling for special mention is that of fruit growing. The fertile valleys and mountainside benches produce fruit of excellent quality. The more important kinds marketed are apples, cherries, strawberries, and peaches, but the climate is so moderate that the variety can scarcely be limited.

RESIDENTIAL PURPOSES—For residential purposes Nelson and district is unsurpassed, scenic grandeur, equable climate, and productiveness of the soil being contributing features.

Following my early rise this morning, I took breakfast at 7-30 and about eight o'clock the trains swung out of Nelson station for a 2½ hours run to Tadenac. The rain has cleared away and we pass through mountainous scenery interwoven with rivers in full spate. There was, however, a cloudy horizon in the far west which in due time materialized in the smoky town of Tadenac.

## TADENAC.

In accordance with plan, motor cars were at the station to take the ladies a drive, but the roads were found to be impassable owing to the floods, and that pleasure had perforce to be abandoned. We hardy mining men risked the chance of being stuck in the mire, and motored to Trail without mishap, although the water came up to the footboards. Immediately on arrival we were conducted through the famous Smelting Works belonging to the Consolidated Mining & Smelting Company of Canada at Trail. These are the largest and most comprehensive works I have yet seen.

I was shewn the process of recovery of lead, silver, copper, zinc and gold, all by flotation, practically similar to what we had already seen in other places, only on a larger scale. My effort to lift a brick of pure gold worth £5000 was unsuccessful. I was *closely watched* all the time.

Again I say that an attempt to describe the methods of recovery would be tedious and difficult. Had I been a chemist I would have revelled in a technical dissertation, but without the requisite knowledge, I will not venture. The visit extended to three hours, and I was footsore and weary when the inspection was completed. Truly we have no idea in the old country of the tremendous hives of industry existing in Canada, and also other Colonies, such as Australia and South Africa.

We were regaled to lunch by the Company and a right good repast it was. The menu included a generous supply of beer and the English contingent *was rapturously grateful*.



The male guests received a souvenir copper ash tray made on the premises and the ladies a lead flower vase with flowers included. Our luggage is increasing.

We have just passed Bonnington Falls, from which the Consolidated Company get their power. They take 60,000 H.P. out of a possible 75,000 which is the limit of the Power Company at present, but an increased H.P. is now being planned.

We expect to be at Penticton about 7 o'clock to-morrow morning, *en route* for Princeton which will be reached at noon.

*Midnight*—I am writing in bed, and by the clear moonlight through the carriage window, I cannot fail to observe the wonderful panorama of mountain scenery through which our train is passing. We are ascending by means of a tortuous rail track, to a height of 4500 feet, and the sight of the winding Buffalo River, visible from the train throughout the entire upward journey along the snow crested mountains, creates in my mind an exquisitely ravishing picture. There are three powerful engines on each train and naturally we proceed slowly and cautiously, every train official being anxiously on the alert. Twining round single bends and double bends,—sometimes with clumps of trees between the ever rising track and the great river,—but oftener with no spaces at all,—with an unobstructed view down right to the water below,—over trestle bridges and vertical stone embankments,—I find myself clutching the side of my bed in dizzy wonder.

The train is negotiating numerous hair-pin bends, with half the carriages almost level with the other half. Progress is consequently very slow.

The "Red" train in front acts as our pilot and is observed from time to time like a giant python with a dragon like head belching forth tongues of fire, millions of sparks and acrid smoke—a veritable sinuous monster,—puffing and gasping in strenuous fight to reach the top. Suddenly a grinding clash of steel echoing through the mountains tells us that something has gone wrong with our pilot train. We learned later that the main coupling had snapped,—the engines proceeding round a hair pin bend and the carriages falling back,—but before dangerous impetus had gathered, the application of the Westinghouse brake saved the situation. The car with the broken connection was shunted into one of the *Y sidings* which are conveniently placed every few miles on the Kettle Valley line and was later on attached to the rear of the "Blue" train. It was duly repaired on arrival at Penticton. The useless coach happened to be the sleeping quarters of the train staff, so that the passengers were in no wise inconvenienced except that no electric light was now available and candles had to be requisitioned. We lost several hours



on account of this mishap, but a substantial margin of time is always allowed by railway officials on this dangerous route, and without further mishap we arrived at Penticton on Tuesday morning, 13th September, at 7 o'clock. The "Red" train had reached its destination slightly ahead of us, and when the passengers of both trains met on the platform mutual congratulations on our escape from serious mishap were cordial and sincere.

## PENTICTON.

*Tuesday, 13th September.*

Penticton Station is built right in the middle of an orchard, and apples, pears, peaches, plums and grapes are all around us waiting to be gathered in. We were told to help ourselves and we did so. There was absolutely no restriction and we practically filled our cabins with all kinds of fruit. We had quite a jolly time during our short stay here, and the oldest of us became rollicking boys for the time being. I think the reaction from the previous night's experiences had something to do with our reckless abandon. To hit a staid mining professor on the jaw with a decayed peach would, I am afraid, cause *slight surprise* if the assault took place in London or Birmingham.



Orchard at Penticton Station

The countryside is charming and the good people of Penticton are engaged principally in fruit growing and farming. Pig breeding is also a lucrative industry in the neighbouring



villages and the fruit fed pork finds a ready market in epicurean circles. It consequently commands high prices.

Leaving Penticton after breakfast we follow the line of the Kettle Valley and the Okanagan Valley with Lake Okanagan on the south till the West Summerland Valley comes into view. Then we proceed past Trout Creek right to the summit at Osprey Lake. We are, of course, very proud of our beautiful Highlands in Scotland, but the comparatively limited homeland picture is reproduced here in all its beauty and grandeur on a correspondingly *enhanced gigantic scale*.

There are hundreds of miles of this mountainous scenery, and I thoroughly enjoyed the run along the vast timbered belts, fertile agricultural valleys, and over ramshackle, swaying trestle bridges.

At noon, a halt was made at Princeton, B.C.



Major Briggs and R. L. P. B. in Orchard at Penticton Station

## PRINCETON, B.C.

After lunch we found a train of open trucks waiting to take us to the Copper Mountain Mine belonging to the Granby Consolidated M.S. and P. Company. I was hoisted into my place on one of the trucks and happily the weather was good but a bit cold. The train with its human cargo slowly made its way up the Copper Mountain by a zig-zag track, consisting of 60 lb. flat bottomed rails fastened to wooden sleepers in a more or less decayed condition, by means of ordinary dog spikes which waggled in the sleepers at innumerable points. Consequently the rail track swayed, the trucks swayed, and



with only a foot or so between us and eternity, all the passengers looked apprehensively over the wagon sides expecting a catastrophe every moment. It was in consequence a *very quiet trip* and even the beauty of the mountain and valley evoked little comment. When crossing the numerous wooden trestle bridges, I noticed many rotten stay supports, and the bridges creaked and groaned ominously. I don't think it was quite fair that we should have been asked to take this risk, as the line had never carried passengers before, but was used entirely for bringing down copper from the mine to Allenby for concentration. The engineers with us were obviously nervous and the rest of us were in a *blue funk*. However, we had burned our boats and had perforce to face the music.

Up almost 5000 feet we crawled, with the possibility of being plunged over the ridge of the mountain to meet a horrible death, if a link snapped, an axle broke, a wheel split or a rail became twisted. The experience is an incident in my life that I would like to forget. One serious accident had already occurred two years previously with the mineral train which was in charge of the usual complement of drivers and brakemen. The brake shoe got worn and slipped and the engine and trucks dropped over 4000 feet. Eight people were killed and their bodies were never recovered as the trucks went on fire at the bottom of the ravine and everything was consumed.

The wooden trestle bridges may be all right, but timber deteriorates and accidents are continuously happening with these dangerous structures.

When we got to the top, 2000 yards more had to be covered to reach the "Glory Hole" and mine entrance. This was accomplished by means of wooden trolleys which were drawn up a slope of 45 degrees with an inch diameter rope. Thirty people were accommodated on each trolley, and the connection by rope was a simple hose, the chain connection being a swivel at the end, a crude link which would be useless if the bolt snapped. In this case nothing would have prevented these thirty people from being dashed to pieces over the precipice. Fortunately there was no accident, but I certainly would not repeat to-day's journey.

I came across the old blacksmith before leaving the mine, and he was fixing another hose on the haulage rope that had been instrumental in bringing us up the incline stage of our journey. I enquired what was wrong, and he calmly informed me that the hose he was replacing was not quite sound; a wire or two was broken and it was "pullin" a bit. Evidently there was a distinct want of supervision which might have had disastrous consequences, and I indicated that a similar state of affairs would not be tolerated in the old country. He merely rejoined that they were "no sae parteeklar here." It was



therefore abundantly conclusive that the rope was not quite safe on the upward journey. I learned that the blacksmith was a Scotsman from Hamilton, Lanarkshire.

Despite all my apprehensions regarding my own personal safety en route, I boldly descended the mine along with many others and marvelled at the engineering skill which has forced the Copper Mountain to divulge its treasures for the good of the Commonwealth of Canada, and the world in general.

The ore here is low grade, about 2% copper with certain recoveries of silver and gold, but these other bye-products are small.

The scene of operations was a "Glory Hole" or quarry where the quartz is mined from the surface. The large patches of bluish ore comprised the copper sulphide, and these veins or patches extended downwards at an angle of 35 degrees.

When the ground was originally exploited a stope had been driven to the next level 150 feet below, and I descended a ladder of this length till I got to the second level and the same process continued to the third and fourth levels—the latter being 800 feet below the "Glory Hole," but I went no further than the said second level. The mining procedure was the same as that of my previous experience. Shot holes are pierced and the shot brings down the strata, which is sent to the bottom in shutes. The contents of these shutes are loaded into tubs and drawn to the surface where they are sent down in trucks to the Concentrator. At the Concentrator (at Allenby) the ore is pulverised into small pieces, then into a finer consistency like dust. Thereafter it is treated with pine oil, lime and other ingredients which bring the copper and other metals to the surface of the mixture and the waste slime is passed into the dump.

This metal concentrate is then drained of water and has now the consistency of a thick paste, which is loaded in wagons and sent to Trail for complete recovery of copper and other metals aforementioned.

The recovery plant at Copper Mountain does not go further than what I would call soft "matte."

We had supper at the mine and it was a specially good one. There was salad and a splendid beef steak, coffee and Princeton ale. It was really a most satisfying meal.

Darkness was looming ahead when I left the mine on my return journey to Princeton, and fear vanished when the awful abyssmal depths were not visible. We travelled dead slow with a brakesman on every truck, and as these men's lives were also at stake, I felt comparatively safe. The swaying was not so evident as on the up journey, but there was the recurring sickening feeling when a creaking rumbling sound indicated that we were passing over a trestle bridge. "Thank



Heaven we've left that one behind " was the audible prayer of relief heard on all sides when the nerve racking rattle of loose boards ceased and we felt ourselves on solid rock once again. The alarming gradient did not worry us now. In due time the freight trucks drew into Princeton station, and we lost no time in making a bee line for our respective dormitories on the well appointed " Red " and " Blue " trains which were due to leave at nine o'clock for Vancouver.

My nerves were all a-jangle and, as I had no bromide handy, I cannot be blamed if I confess that I indulged in a more palatable soporific before I laid my wearied and jaded body between the sheets.

## *EN ROUTE TO VANCOUVER.*

*Wednesday, 14th September.*

I am writing these notes at Vancouver. After leaving Princeton a couple of hours sleep seemed to suffice, as from midnight, possibly stimulated by the delightful mountain air, I remained fully awake, and enjoyed to the full the remaining run of 200 miles, over gorges, across shelves on the mountain-side,—piercing jutting promontories by means of tunnels, all gloriously illuminated by the light of the moon.

We threaded the Coquihalla Pass through the Cascade Mountains, and after passing the summit at Coquihalla, the line followed the Coquihalla River down the west slope of the Cascades and the scene became one of rugged grandeur.

The roadbed along the fearsome gorges was hewn out of the solid rock. The one outstanding danger of this particular section is the frequency of accidental falls of stone which are apt to become displaced with the vibration of passing trains, and as our trains were the heaviest that ever passed along this route, anything might have happened, but nothing untoward did happen, although after climbing the 3000 feet, the descent was slow and all sleep for the lethargic must have been continually interrupted by a ceaseless jarring of brakes.

Away below we saw great pine trees cling and thrive on shelving banks, with the Coquihalla river, now a raging torrent, adding a picturesque note of beauty to the scene. All around us noisy mountain cascades appeared like streaks of silver, the effect being enhanced by the pale rays of the lovely moon. The whole picture was thrilling and bewitching.

The train appeared sometimes to be in mid-air but the hollow rumble which ever and anon denoted the presence of wooden trestle bridges instantly dispelled this illusion. We halted for a few minutes at Othello, after which the train passed through five tunnels in perfect alignment.



At the portal of each tunnel the cliffs had a sheer rise of hundreds of feet, while the gap to the next tunnel appeared to be bridged with a flimsy looking steel span.

Zigzagging between these tunnels, the Coquihalla River noisily continued to its confluence with the Fraser River at Hope. We therefore proceeded "through crag and torrent till the night had gone," and eventually crossed the Fraser River by means of an imposing steel bridge, continuing westward till Vancouver was reached about half-past nine on Wednesday morning.

## VANCOUVER CITY.

Immediately on arrival at Vancouver we lost no time in boarding the s.s. "Princess," bound for Victoria. We had previously cleared our cabins of all our belongings, as the carriages had to be thoroughly cleaned in preparation for our return journey.

We had two full days off the chain of rail travel and the respite was eagerly welcomed and fully appreciated. To-day is warm and balmy and I thoroughly enjoyed the four hours' sail to Victoria which, by the way, is the Capital of Vancouver Island. A point of interest on leaving the harbour was the well defined dividing line made by the Fraser River current in contact with the great Pacific Ocean. The sea was strewn with small islands luxuriant with vegetation and careful navigation was necessary. The sail was delightful and invigorating, but all too short.

## VICTORIA.

### VANCOUVER ISLAND.

Arriving at Victoria about 2-30 p.m. I went immediately to the Empress Hotel where I had a much needed bath. Afterwards we were all invited to the Governor's (Hon. Randolph Bruce) House to a garden party where we were presented to the Governor and his suite.

His Excellency spoke pretty broad doric and I had a word or two with him. Thereafter we were regaled to tea and ices and had a walk round the beautiful grounds. A band of pipers marched about the policies and every piper was essentially Scottish.

Observing a tall "totem" pole facing the house Major Briggs and I got photographed beside it. These "totems" were fashioned and built by the Indians and duly worshipped as gods. They are composed of weird looking figures and grotesque faces carved in wood, the latter painted in a manner



to give the effect of a diabolical leer. Each carving is fixed on the top of the other to a height sometimes of thirty to forty feet.



Totem Pole at Victoria, B. C.

A drive round the city and environs was the next order of the day. The Marine Drive which embraces many beautiful landscapes and seascapes has a total length of about *fifty miles*. Some drive.

Then the Malahat Drive which carries one through a variety of noted spots, and to a point on Malahat Mountain 1250 feet above sea level is forty-six miles in length. This is talking big, but round and about the city there is a labyrinth of drives which to the tourist, unfamiliar with the district, is positively bewildering.

Every effort is evidently being made to beautify the city and the original ramshackle buildings and bungalows are being gradually replaced by noble stone edifices, ranged with architectural symmetry on each side of the broad and well paved streets.

Near the Governor's residence, a disused Cement Quarry had been transformed into lovely rock gardens. The New Crystal Gardens were also a unique attraction, possessing a hot salt water swimming pool, peacock promenades, floral lounges, picture galleries and dancing floors.

In view of its situation, environment and climatic conditions, and possessing no less than three harbours, Victoria, the Capital of British Columbia, is one of the most beautiful cities that can be imagined.



The different points of interest kept us well occupied till the evening, when a banquet and dance were given by the members of the Congress, in honour of, and under the patronage of His Excellency Randolph Bruce, the Lieut.-Governor of British Columbia. The old gentleman engaged in almost every dance without the slightest evidence of fatigue, but that was not to be wondered at, as he was a Scotsman of the purest lineage.

Tired and wearied I climbed into my luxurious bed in the Empress Hotel about 2 o'clock a.m. In the morning we leave Victoria again by the s.s. "Princess" at nine o'clock for Vancouver City, *via* Britannia Beach.

I am rather sorry we had not time to inspect the Nanaimo Coal Mines in Victoria, but the distance, about 80 miles, precluded that possibility during our short stay. We, however, met many of the officials connected with the colliery at our hotel and at the banquet.

We learned that there was certainly *no boom in Coal* in the Nanaimo district. Owing to its situation the colliery depends more or less on bunkering orders.

### *Thursday, 15th September.*

Breakfasting in the Empress Hotel at 8 o'clock this morning, our weary band of pilgrims, only half awake and distinctly languid as the result of the previous evening's varied programme, immediately thereafter meandered slowly to the harbour where the C.P.R. steamer "Princess" was awaiting their pleasure. Leaving at nine o'clock, we enjoyed a delightful sail in beautiful weather, and landed at Britannia Beach about two o'clock.

**BRITANNIA MINE**—Disembarking we were cordially welcomed by the staff of the Britannia Mining and Smelting Coy., Ltd., who control the operations of the Britannia Mine, which is one of the most important industrial enterprises on the southern coast of British Columbia. The mine is situated on Howe Sound, thirty miles north of Vancouver, and employs about 1100 men. The copper ore recovered is low grade, and no great success was achieved until the Oil Flotation Process for concentration of the ore was adopted in 1911.

The total ore reserves as late as 1926 were stated to be over seven million tons, so that the prospects are rosy. The mills and workmen's houses were at one time built at the foot of the mountain, but persistent floods forced the officials to build the new mill, and also to re-erect the village proper on a higher altitude, in terraces, practically hewn out of the cliff sides. There is no road and no railway. The rocky slope is too precipitous for either operation, and consequently the



sole means of communication with civilization is by water. A boat goes to Vancouver and returns once a day. The miners' children are as agile as monkeys and, although they are continually in the midst of danger, accidents are practically unknown.

We climbed up steps to the Concentrator but did not go to the Mine, as there was not time to visit both. The Concentrator which, as already mentioned, is constructed for the oil-flotation process, is similar to what I have already seen otherwise and calls for no special comment. About 3000 tons of ore are dealt with daily.

The buildings high up on the rocky cliff sides have an imposing appearance viewed from the water, the mine being almost 5000 feet, and the Concentrator 500 feet from the base. It made a pretty picture.

The Company naturally cater lavishly for the welfare and amusement of the workmen and their dependents, by way of providing them with a splendid club house equipped with Reading and Billiard rooms, Bath rooms, Rifle ranges, Skittles, etc., as well as a large concert room which can be used for dances as well. Outside, the game of Base Ball is fostered and I saw two tennis courts. We had tea in the gymnasium and it was served very daintily by a bevy of sweet maidens who all seemed to be effervescing with the joy of perfect health—of supreme contentment and happiness. Again, I am afraid, some of our youths lost their hearts, for the time being, to the fair daughters of the toilers at Britannia Mines. Boarding the "Princess" at 4-30 we arrived at Vancouver City at seven o'clock.

## VANCOUVER CITY.

All my luggage was waiting for me at the Hotel Vancouver, and, after a refreshing bath with necessary change of raiment, I sat down to dinner at 8 o'clock. Thereafter I strolled along several of Vancouver's well-lit streets in company with Mr. Henry Walker, as neither of us felt inclined to dance, and avoiding the giddy throng on our return to the hotel, we both escaped to our palatial sleeping apartments at the witching hour of midnight.

### *Friday, 16th September.*

After breakfast I made one or two business calls and can only say that everywhere I met with a cordial and fraternal reception. Most of the business people I came in contact with were Scots, or of Scottish descent, and perhaps this had something to do with the kindness I received at every place



of business where I called. This, however, may not be the sole reason. The mentality of Canadians in general is, in my opinion, stimulated with a desire for information and everybody gets his chance of being in the picture. The idea is obviously sound, as practically every proposition is met with an open mind and receives careful consideration. After all, by such means only, can knowledge be spread and assimilated. Smug contentment and satisfaction with things as they are will always be the curse of the mother country, and I feel that if Colonial ideas of commerce, *i.e.*, the broad view and wide outlook—were adopted by business people in the homeland, there would be less exploitation of clever British patents in foreign countries.

I am honoured with the confidence and friendship of a host of captains of industry in our own country, as the result of an entire life's work among them, but my experience throughout Canada leads me to think that I could forge a happy commercial link with a similar number of staunch Canadian friends *in a month*. Perhaps I am too optimistic, but my impressions of the business world in Canada will always be to me a delightful memory.

Vancouver City is very British. In the hotels the food is served in a similar manner to that of any first class London hotel. Everything is in a big way. Public buildings are designed as they are meant to be when completed. If the money is not immediately available for the entire structure, the job is proceeded with in part, and those responsible, buoyed up with the conviction that more money will be forthcoming in due course, arrange matters so that another wing may be added later in accordance with original plan. This is the reason that so many huge architectural edifices still remain uncompleted, and consequently appear at present an eyesore, but the original plans are invariably shewn to the visitor and these give in detail the final layout. It shows a wonderful commendable optimism.

The University at Vancouver illustrates this point. At present its appearance reminds one of a Barracks, but the finished structure according to plan will materialize one day into a Palace of Beauty, and will eventually be considerably larger than Toronto University. These universities are all built on the quadrangle principle. I had the opportunity of visiting the Vancouver University through the kindness of the builder, Mr. Kitmars, and was introduced to the Librarian, Mr. Riddington, who proved himself an absolute encyclopædia of knowledge. I was conducted through the entire building including the wonderful library and laboratory. Everything is certainly being done to train thoroughly the students in Mining and Chemical research, together with all other branches of knowledge common to Universities.



STANLEY PARK is a very lovely spot and we were entertained to lunch in the Pavilion there. In the park a magnificent tree was seen. Through its base a carriage and pair can go quite easily. Then there is the Marine Drive winding in part through Stanley Park, which covers about 21 miles, and across Burrard Inlet is the Capilano Canyon with its immense fissure of 400 feet. Naturally, in the hustle, all these beauty spots could not properly be enjoyed or mentally absorbed.

A motor trip to Grouse Mountain proved a delightful experience. The mountain road ascended comparatively easy grades, weaving its interesting way among green giants of hemlock, cedar and fir, varied with open stretches, from which glimpses of the city and harbour far below could be caught. At the end of the drive on a rounded plateau was a charming Chalet Inn. From this plateau, nearly 4000 feet above sea level, an extensive panorama was revealed, and the view extended 200 miles distant to the beautiful Olympic Mountains in the State of Washington, U.S.A.

Vancouver City itself is the largest in British Columbia. It is ideally situated in every respect. Across the Burrard Inlet are to be seen the glistening peaks of mountains, among them being two which have been aptly named "The Lions." To the north, rise the Cascade Mountains, while to the southwest, may be seen Mount Baker.

Vancouver City is also noted for its harbours. Burrard Inlet, already mentioned, is the principal one, and with an arm of the sea, extends over twenty-one miles. There is also the Fraser River, and intervening between these two there appears False Creek, on the shores of which are many shipyards and manufacturing industries. The aggregate frontage of these three harbours is 84 miles, while of land-locked anchorage there are about forty square miles. As a shipping port, Vancouver City has few equals. Its most outstanding development has been in respect of grain from Alberta and Western Saskatchewan, the quantity passing through its elevators to outgoing steamers for export to Europe *via* the Panama Canal, and across the Pacific to the Orient, amounting in the crop year 1923-24 to nearly 60 million bushels. Since the Panama Canal was opened, other Canadian exports have increased considerably, and imports from Britain have reached a satisfactory tonnage, for the benefit of both countries.

An opportunity was given to the Congress members to visit the Copper Mine and Smelter belonging to the Granby Consolidated M. S. & P. Coy., at Anyox, but I was, *for the nonce*, fed up with mines and didn't avail myself of the chance. Originally this Company smelted the ore in blast furnaces but this has now been changed to the more up-to-date metallurgical practice of concentration by oil-flotation.



A banquet in the Hotel Vancouver completed a hectic day, and I rather enjoyed the repast which, by the way, was enlivened somewhat by the addition of cocktails, wines and liqueurs. However, I slipped off before the inevitable speeches were on tap, and securing my baggage, made my way to the station where the "Blue" train awaited. My cabin was all the better of its spring cleaning, and Joe helped me once more to spread out my wearing apparel on pegs and other places till my sleeping quarters again assumed its *familiar appearance of disorder*.

I am going to bed at eleven o'clock to-night, and the train leaves at twelve o'clock midnight for Jasper.

My compliments, acknowledgments and sincere thanks I leave to the good people of British Columbia for their delightful hospitality and warm-hearted friendships.

## *EN ROUTE from VANCOUVER to JASPER PARK.*

*Saturday, 17th September.*

I slept soundly after leaving Vancouver, and missed many beautiful views from the train in the moonlight. Our progress continued along the valley of the Fraser River closely hemmed by the mountains of the Coast Range on the west and the Cascade Range on the east. These two mountain systems parallel each other for about a hundred miles, the river being between, until it emerges at the head of the delta to pass around the southern end of the Coast Range. We passed Lytton at the junction of the Fraser and Thompson Rivers. Lytton was the name given to the town in honour of Bulwer Lytton, the English novelist, who was the British Colonial Secretary when the gold mining boom started in 1858. Just before reaching Lytton, an Indian graveyard was observed, perched on a small gravel plateau. This plateau was created by the gold miners in the 50's, washing the gravel in the vicinity of the little "God's Acre" and although offered 80,000 dollars for the site of the graveyard, which was understood later to be rich with the precious metal, the sacredness of the ground outweighed the desire for gold, and the Indians refused to sell. The town of Ashcroft is soon passed. It is a gateway to, and also the distributing centre for the Cariboo district and the Thompson Valley. The old Cariboo Road is one of the most famous of British Columbia highways, and its origin was the outcome of necessity created by the stampede of miners into the Cariboo country between 1862 and 1865.



KAMLOOPS is seen as the morning brightens, and a short stop is made here. The Indian name of the place is CUM-CLOUPS, meaning the "*point between the rivers*," because it is here that the north and south branches of the Thompson have their confluence. The site of the town had its origin as a trading post in 1812 by the Pacific Fur Coy., but this company was absorbed later by the Hudson's Bay Company. Leaving this interesting trading post behind, the train continued its way through the Thompson River Canyon where the scenery was exceptionally fine. This part is pre-eminently a sportsman's paradise and offers everything from grizzly bear, caribou and goats to willow grouse. Visiting each other's cabins and recounting adventures whiled away a very pleasant journey. As we proceeded the air again became distinctly chillier and we were obliged to don warmer clothing even in the heated compartments. A few hours previously, I was pestered with vicious black flies and insidious, over-attentive mosquitos in an atmosphere of 90 degrees, and now I am flapping my arms in an endeavour to keep warm. Somehow or other, I simply accept these alternations of cold and heat without protest, and my excellent health demonstrates to me that I have become accustomed to the climatic conditions associated with a strenuous Canadian trip.

Towards late afternoon Mount Robson, the monarch of the famous Rockies, 13,000 feet above sea level, is clearly seen from the observation car, as the train turns easterly for the long pull through Yellowhead Pass. In the setting sun, the glimpse of the great mountains' snow capped crest was simply gorgeous, and the picture faded away too quickly as we proceeded in our winding ascent in the now bitterly cold atmosphere.

LUCERNE, B.C., the summit of the rail road bed 3,600 feet above sea level, is passed within an hour, and at 10-30 p.m., after a long journey full of incident and enlivened with the pleasure of free and enjoyable social intercourse, along the entire gamut of cabins, from the engine to the observation car in the rear, we arrived at JASPER, ALT. Watches were set forward an hour at Jasper to conform with mountain time, but I must confess that these alterations in time rather puzzle me. I chose to sleep in the train during my stay here, but a few of the passengers made their way to Jasper Park Lodge about 3 miles distant where they would doubtless enjoy the luxury of a bath and the other amenities associated with a first-class hotel. The mountain scenery around the village looks very beautiful and the village itself appears as if it had been recently constructed. However, it is too dark to see much. It is, moreover, very cold and I am off to bed.



## JASPER PARK.

*Sunday, 18th September.*

Being on my return journey I am getting home letters occasionally, but in the wilds I cannot expect regular mails. The letters received this morning are dated 1st September.



R. L. P. B. writing his Diary at Jasper

Motors were waiting our pleasure alongside the train, from seven o'clock this morning, to take us to Jasper Park Lodge for breakfast. On arrival there I was delightfully surprised to find that the hotel, although entirely built of timber, was quaintly designed in a most picturesque fashion and contained all the comforts of a first-class establishment. The dining hall and public rooms were all in the main building, and the Pension accommodation was situated in neat little bungalows alongside, overlooking the Lake. Truly a charming place is Jasper Park Lodge. I found the atmosphere inside the Lodge just a little bit stifling, but I soon got used to the immoderate heat. After breakfast, most of the younger ladies, and all the bright youths of our caravanserie, appeared in breeches and sports coats preparatory to engaging in trail riding. The air soon mellowed with the sun, then others donned flannels for tennis. To those so minded, golf and fishing proved an attraction. I chose to laze around, taking many photos of choice mountain and lake scenery, and spent a peaceful hour or two canoeing on Lake Beauvert.

Jasper Park reminds me intimately of Switzerland. All around are inaccessible mountain peaks covered with eternal snow.



At the base of the mountains run swirling icy cold rivers, fed by innumerable silvery waterfalls and occasional avalanches—a wonderful picture of combined splendour and purity. To the traveller the first impression of Jasper is a blissful recognition of its restfulness and peace. There are the green silences of the pine forest, the wide spaces, the serenity of the noble peaks rising on all sides into the stainless blue, and the exquisitely coloured Lac Beauvert, lapping gently against the rocky shores. At the end of the lake I observed several beavers busily constructing their home, and all around the National Park Reserve, with an area of 5360 square miles, are to be found thousands of wild animals as safe from the big game hunter as if they were within the precincts of any City Zoological Garden. Jasper National Park is the largest game sanctuary in the world. Killing, maiming or molesting the animals that fearlessly roam about, is strictly prohibited under severe penalties, and when we observe the "*Wild Wood things unheeding us*" as we walk along, we are filled with astonishment and incidentally experience a new thrill. To wake in the morning and see the muzzle of a black bear against one's bedroom window, which, by the way, is a common occurrence,—a deer browsing on the lawn, with a few chipmunks gambolling around,—the lordly elk, moose, caribou and, perhaps, a coyote, in the background taking their stately way through the fringe of the adjoining woods,—was an experience which made my stay here a positive Adventure. Nowhere are there better opportunities for recording intimate animal studies by means of the camera, and some priceless pictures were taken.

While Jasper is a haven of rest in every sense of the word, the elixir of the magical mountain air somehow or other steals into our veins, banishing fatigue and inertia, and is absorbed into our pinched nerves. We feel we must be up and doing. We yearn for activity in the form of walking, swimming, golfing, motoring, riding, climbing or canoeing. We had two days here. I could have stayed a month. Then in the spacious Social Hall of the Lodge, where the guests gathered after dinner before the great logs crackling in the fire, the talk was never of rest but of *achievement*. It is a truism that "all fortunate holiday travel is a renewal of youth," and in our case I would go further and say that at Jasper we all had a "taste of the Pierian Spring which made men walk as gods."

During my sojourn in this beautiful region of sublime grandeur, I explored the mysterious Gorge of the Maligne Canyon, also Pyramid Lake lying like a spread peacock fan, at the base of the Pyramid Mountains, and the lovely chain of lakes on each side of the river. Then by motor I took the splendid highway, skilfully excavated from the cliff sides,



that swept up to the base of Mount Edith Cavell, gaining, as it rose in wide spirals, an exquisite glimpse of the true grandeur and magnificence of the glorious Athabaska Valley.



Mount Edith Cavell near Jasper

Following the road eastward, I passed along the route of the famous Athabaska Trail to Pocahontas, which included the outer strangely twisted ranges of the National Park. Mountain sheep looked askance at us as we passed, coyotes lurked furtively in the bush, a couple of porcupines showed their bristly backs in the dense brushwood, and a colony of beavers were observed swimming over the lake.

At Pocahontas are the famous Punch Bowl Falls. I took several snapshots and hope they will come out all right. Among the mountains overlooking Jasper are Mount Sorrow, so called on account of its proximity to Mount Edith Cavell, but the grandest of the range, to my mind, is the Throne Mountain which, being covered with snow, towers above its green pedestal of forest, in dazzling and spotless purity, suggesting the appearance of a great white throne.

As at Banff the hotel season lasts only four months, so that the cost of a sojourn here is correspondingly high. Our first day has closed too soon. We stay on at Jasper Park to-morrow although the itinerary takes us on to Edmonton, but owing to an outbreak of infantile paralysis in Edmonton the authorities have forbidden the Congress to enter this city. I am rather sorry, as I specially wanted to visit Edmonton, but as this strange malady often proves fatal with adults, the precaution is doubtless a wise one. The epidemic has spread more or less right through Canada and the United States. I think the extremes of cold and heat are in a measure responsible.



About midnight the train sleeping contingent left the cosy warmth of the Lodge, and motored to the railway siding in open cars, but although benumbed with the cold journey, the temporary inconvenience was soon forgotten when I again climbed the steps of the coach leading to my own comfortable cabin. After a chin wag with Mr. H. O. Dixon, who is a prosperous Lancashire coal owner and an eminent mining engineer as well, I enjoyed his hospitality for half an hour before retiring to my lonely virtuous cot about 1-30 a.m.



Throne Mountain near Jasper

### *Monday, 19th September.*

We motored the three miles up to Jasper Park Lodge this morning for breakfast, and found our Canadian friends arranging for further excursions on foot and by motor. Many of the visitors were already prepared to "boot, saddle, horse and away," but I contented myself with a motor run to the Maligne Lake where more than a score of splendid peaks form its titanic guard of honour, their lofty summits sending down wildly beautiful glaciers and waterfalls directly into the blue waters below. In the afternoon I visited several of my friends in their bungalows and was charmed with the clean and sweet condition of the tiny rooms. The rest of the day I spent in taking photos of animal life including several black bears, and in the evening a banquet was given in the Lodge.



Many Edmonton coal magnates were among the guests, and there was the usual spate of after dinner oratory. Mr. Henry Walker, Chief Mines Inspector for Britain, in his speech deprecated the insistent call for British labour in Canada, as this demand was not for an *all the year round term* of employment, but simply for the harvest season. "When this was over," he said, "workers were, as a rule, thrown on their own resources with the result that they flooded the towns." In vulgar parlance they became "Bums" and descended into the lowest strata of pitiful existence. In the course of Mr. Walker's remarks, the lights went out and as it was evident that his observations were not acceptable to a section of his audience, he naturally surmised that the lights were cut off intentionally, but of course this was not the case. A most sincere apology was promptly tendered to Mr. Walker by the management of the hotel for the mishap, which had been unfortunately caused by the fuse of an electric wire, and the incident closed happily.

I hold that Mr. Walker was perfectly right in his arguments and more discretion really ought to be exercised in exploiting labour from Britain *without a full guarantee of continuous employment* for those who are willing to work. Mr. Balfour Sneddon followed with a peroration delivered in the dark, and his remarks were very diplomatic and conciliatory. I retained a *firm grip of my tumbler* during the rather protracted episode and remained consequently quite happy and contented.

At 10-30 p.m. we were conveyed again by motor to our trains. We steamed out of the station at 11 o'clock and left this "wild piece of nature," en route for Sterco where we expect to see to-morrow the wonders of sub-bituminous coal, dug, loaded and despatched *in the open*.

## EDMONTON, ALTA.

Despite the strictures laid down regarding the proposed visit of the Congress to Edmonton, one of my friends broke through the line of defence and recklessly entered the city. He told me later that the dreaded epidemic was not so bad as the authorities alleged, and I was not surprised, as quite a number of Edmonton residents were our honoured guests at dinner when we sojourned at Jasper. My friend courageously took a "header" on his own, against explicit and definite instructions, but he was not allowed to rejoin the Congress party during the remainder of the trip. Our Canadian friends were certainly on their guard so far as our physical welfare was concerned and protected us at all times with paternal anxiety and watchfulness.



Edmonton, the capital of the Province of Alberta occupies a commanding position on the high banks of the North Saskatchewan River. The Hudson's Bay Company built Fort Edmonton in 1795, twenty miles below the existing city, but this fort was destroyed by the Indians in 1807. It was rebuilt in the following year on the site of the present city on the ground that is now occupied by the Alberta Parliament Buildings. Round this spot arose the City of Edmonton with a population to-day of 75,000 residents. It possesses a number of excellent Public and High Schools, also a well equipped technical school. Here also stands the University of Alberta, which occupies a commanding position on the south bank of the North Saskatchewan, right opposite the Parliament buildings. Edmonton burns its own coal, and may be said to be built upon seams of coal. There are over 30 coal mines working in the vicinity. Natural gas is piped from the wells at Viking, some eighty odd miles due east. Edmonton owns and operates all its public utilities, such as street railway, telephones, electric light, also power and water services. It is a real hub of industry. However, the deadly microscopical bacteria contained in the insidious affliction termed infantile paralysis held the fort, and the members of Congress were ignominiously routed, at least, by proxy.

I hope to revert to coal mining in general throughout Canada, and its relation to Canadian industrial markets in a special addendum at the close of this diary. For this reason I have included the aforementioned information relating to Edmonton and its importance as a coal mining centre, although I was unfortunately prevented by the Health Authorities from enjoying a personal visit.

## *STERCO and COAL VALLEY.*

*Tuesday, 20th September.*

Here we are again among the Coal Measures. Geologists, professors of mining, and mining managers forget they were boys yesterday, and the lines of knowledge already acquired, also the further knowledge they expect to obtain, appear in little wrinkles round the eyes, gradually extending to deep furrows on the brow and cheeks. It is a pity, but they have come to earth again. I personally look on matters from an academic standpoint so that I observe without absorbing—it is not my bread and butter. I thus *continue to feel* the exhilaration of the last two days.



STERLING COLLIERIES LTD. STERCO.  
COAL VALLEY MINING CO., LTD.

Breakfasting in the train about 8 o'clock, we were separated into groups, with a local mining official for each group, and inspected the Open Cut mining operations adjoining the railway line. The mine is just an open Glory Hole,—a coal quarry,—with an almost perpendicular coal face, measuring from 30 feet to about 180 feet in thickness. Naturally the quality of coal is poor, but as the C.P.R. are the principal shareholders they use it without demur. It is, however, unfit for railway use in the dry season and consequently operations each year extend to about seven months only.

The system of winning the coal is to hand drill and fire alongside the rails placed in the coal quarry and then transfer the coal by steam shovel from the blown heap into cars, about four tons capacity. It is a cheap method of working. Overhauling steam shovels do the bulk of the work and the all-in cost of production is estimated to be less than a dollar per ton. Selling price is fully two dollars per ton so that a handsome profit is shown. The coal is dirty, irregular in deposit, and soft. The seam extends for two miles and the rail roadways were several feet under water. The entire proposition, to my eyes, seemed neglected and derelict, but the circumstances of ownership have made it a success. In our country it would only be considered during a *protracted coal strike*.

Leaving Sterco and this desolation at 11-30 we arrived at COALSPUR an hour later. From this point we were transferred to a local day-train which in due course conveyed us to CADOMIN. The branch line to Cadomin was, I believe, constructed by the Mountain Park Colliery Coy., whose Chairman of Directors is Col. Mitchell of Tulliallan Castle, Scotland, and the unfortunate position of being "first in the field" is that the other collieries which were subsequently started in this district have the *fullest use* of the branch line at merely a small cost per ton of coal conveyed with *no addition whatever* to ordinary transport rate for this privilege. The upkeep of the railway entirely devolves upon Col. Mitchell's Collieries so that this in itself is a big financial drain. It is, however, Canadian law and must be observed. I had not the opportunity of visiting either Mountain Park or Luscar Collieries which are both controlled by Col. Mitchell's Coy., but I understand they are the last word in up-to-date plant, mechanical mining, general economic lay-out, and so far as the workmen's houses are concerned, the hygienic and modern sanitary conditions are a model which could with advantage be emulated by the owners of the surrounding collieries.



From Coalspur our special train started its upward climb of about 5000 feet, crossing the watershed between the Embarras and M'Leod Rivers, and passing the mines of the Saunders Ridge Coal Coy., at Mercoal. The route then follows the M'Leod River Valley in a south westerly direction. At LEYLAND there is the branch road to Luscar Collieries. CADOMIN is on the north eastern slope of the Nikanassin Range of the Rockies, at the gap where the M'Leod River issues from the mountains.

Mountain Park Colliery is situated at the end of the branch on the headwaters of the M'Leod River. The route was not without interest as from several vantage points glorious views were obtained. We passed over the usual creaking trestle bridges and round hair pin bends, but the track itself was more stable than others we had previously gone over, and consequently we felt comparatively secure and free from the danger of toppling over.

In the drawing offices at all the collieries, and also at every non-ferrous mine in Canada, I noticed that the working plans were engraved *on glass, tier upon tier*, in accordance with the number of seams that were being operated, so that if there were five seams there would be *five sheets of glass plans* placed in shelf fashion, each one fixed in position over the other. In this manner the workings were simply and clearly defined and made interesting even to a novice. It is a system that might be adopted with advantage in our own country.

CADOMIN COAL COY., LTD.,  
CADOMIN, ALBERTA.

Immediately we landed at this colliery we were divided into parties, each group being taken in charge by a colliery official. Several of the ladies in our party were brave enough to go underground, but I am afraid they regretted their venture, as the roads were ankle deep in mud. In descending the shaft, I found that the coal was of a minimum thickness of 9 feet so that there was no stooping when walking to the face. We were conveyed along on tubs, each of which held 6 people, and were hauled one mile on these. Afterwards we had to walk another half mile to the working face, which at this point shewed 25 feet of solid coal. This coal is shot down and then put on tubs by means of a steam shoveller. Output is 2500 tons per day of 20 hours, two 10 hour shifts. They use 40 lb. and 30 lb. rails, and no Brattice. The tubs are supplied from Vancouver and they are manufactured in Chicago, at 360 dollars each. Capacity of each is 3 tons, all-steel bodies, rail gauge 3 ft. 6 ins., with ball bearings.



The quality of the principal seam is good, with an eight per cent. ash content. The original methods of winning the coal were on usually accepted lines, but spontaneous combustion became a frequent occurrence and the Company was almost ruined. The panel system was latterly adopted and this proved a success. Solid pillars, 200 yards in thickness, isolate the panels so that in the event of a fire arising in any panel, it can at once be sealed off, and the safe position of the mine consequently maintained. As usual I found that practically all the officials and many of the workmen were *Scottish*. I was glad to ascend the shaft again and breathe God's free air, although I was not too comfortable with a perspiring body and cold wet feet.

Wending our way to the Camp Hall we found a wonderful spread of good things awaiting us, and the very charming daughters of the villagers attended to our every want. These sweet Camp maidens endeavoured to persuade us to wait and dance, but our scheduled time for leaving was nigh, and we were on this account precluded from accepting this further token of hospitality which at Cadomin, as elsewhere, proved quite embarrassing. Mr. W. J. Dick is General Manager at these collieries, and he voiced the sentiments of the Camp residents in a warm word of welcome at the close of the banquet. His assistant, Mr. M'Millan, played some very beautiful Scottish airs, including "Annie Laurie," on the violin, and several of the miners' daughters sang and played the piano very sweetly and effectively. Altogether we had a splendid time. I met Andrew Brown who is chief engineer of this colliery. He used to be at Niddrie twenty years ago under Robert Martin. This is old history but Andrew still speaks broad Scots. His wife is "deef" and rolls her r's like a true *Portobello Canadian*.

The only criticism I can offer regarding this district is connected with *sanitation*. Open sewers run into the river, and there seems to be no method adopted to deal with waste vegetable matter, with the result that in the village proper, a nasty effluvia exists. Should an epidemic visit this happy little place I am afraid the entire valley would be affected by the scourge. I understand, however, that steps are being taken, now that the colliery is prosperous, to combat this appalling condition of things, by adopting satisfactory hygienic improvements for the good of this little community. The sooner the better.

After a hearty send-off we left Cadomin in the special train about 8 o'clock and reached Coalspur in good time to board the "Blue" train which was timed to leave at 10 p.m. for Wainwright, Alta, where we hope to see the famous Buffalo Park which contains the largest herd of buffalo in the world.



## WAINWRIGHT, ALTA.

*Wednesday, 21st September.*

Arrived here this morning at 9-30 and was motored round the Buffalo Park where I saw and photographed several herds of buffaloes, elk, moose, deer, yak and antelope.

The buffalo is a tremendous animal when you are beside it, and although I was not understood to alight from the car, I got out and approached quite near. Buffaloes don't like people on foot, strange to say. One buffalo got separated from the rest and with tail up, rushed like lightning to the edge of the lake. I can only imagine what a stampede of several thousands would be. Cowboys on horseback are in continuous attendance in the park. They are of course armed. It was a sight in a lifetime, and I was glad to have the opportunity of witnessing it. The park is 15 miles long, 13 miles wide and is enclosed in a seven foot fence of woven wire, *the largest fenced-in park in the world*. I observed a fine specimen of a stuffed buffalo mounted in a glass case at Wainwright Station.



Buffalo Herd in Wainwright Reservation

There are about 8000 buffalo in Wainwright Park. Another very interesting animal in the park is the *Cattalo*, a cross between a buffalo and a cow. It is understood that the hybrid is rich in beef giving qualities. Wainwright is the centre of a mixed farming district, in which considerable grain is grown. There is plenty of good shooting, such as prairie chicken, duck, and wild geese.



I heard that lignite had been discovered in the vicinity but the exploitation of this mineral has not yet materialised. There are also oil wells here, but they are not meantime developed. These wells give off a natural gas, but in the wilds of Alberta, nobody wants gas. Even in our train the American contingent supplies *more than is required for the whole of Canada*.

At 12 o'clock noon, the now familiar cry of "All aboard" was followed by a rush for our travelling domicile, and in another hour we were passing the interprovincial boundary between Alberta and Saskatchewan, the first town in the latter province to be reached being ARTLAND, forty-four miles east of Wainwright. We skirted the borders of Lake Manitou, with an area of 67 square miles. The water of the lake is alkaline and this was evidenced by the white incrustations which margin its shores. I saw thousands of wild duck skimming the surface.

The vast plains in our onward course to-day are a refreshing contrast to the great mountains among which we have been for the last few weeks. We are never satisfied. It is *contrast* which oils the wheels of sustained interest in environment, companionship, pleasure or work. That is the reason we continually *cry for the moon*. If we had it we would want something else.

We are passing immense prairies with limitless outlook, the corn and wheat stalks waving like the billows of the sea. Our circumscribed home fields are puny and negligible in comparison. Promptly at 6 o'clock p.m. our trains drew up at Saskatoon.

## SASKATOON, SASK.

*Thursday, 22nd September.*

As already indicated I arrived at 6 o'clock and David Morrison, a son of Maggie Morrison who used to be in Coatbridge Select Choir, met me at the station. He was accompanied by his wife, who is a very charming lady, and his little boy. David had observed my name among the Congress list in the local paper, and duly hunted me up. Mr. Barnes is his uncle, Mrs. Barnes being his mother's sister. He took us to his nice little home, and we spent a pleasant hour together. David thereafter came down to the train and stayed till midnight, at which hour we left Saskatoon.

During the evening we were motored round the town, and shewn the sights of brilliantly lighted shops and streets and also the University. Every province has its university and here is built the University of Saskatchewan. It is designed on the same lines as other Canadian universities with the principal



building in the middle, containing class rooms and offices,—the other buildings, *i.e.*, the laboratory, library, etc., being placed in the quadrangle. As usual, it is planned for extension and at present is incomplete. Of peculiar interest is the fact, that this beautiful limestone edifice is constructed of float rock picked up from the banks of the Saskatchewan River. I met Professor Murray, Principal of the University. He is a Scotsman and is one of the most brilliant educational luminaries in Canada. He is, of course, very proud of his college.

I should have preferred to visit Saskatoon in daylight, but I saw sufficient to enable me to form a very favourable opinion of the city. As surveyed in 1883, the site comprised 160 acres, and the few dwellings erected that year were either of sods or logs. In 1901 it was incorporated as a village,—two years later it became a town,—and in 1906 reached the proud position of a city with a population of 5000. To-day its population is over 26,000 and it is known as the "Hub" City. Its name, conferred in 1882, originates from the "Saskatoon" or "Service berry," which is found on the banks of the Saskatchewan River. The Dominion Government Interior Terminal Grain Elevator situated in the city has a capacity of four million bushels.

Members of Congress were at a late hour entertained by the Corporation with an impromptu Dance at one of the leading cafes, and thereafter they stepped aboard the train which left Saskatoon for Winnipeg on scheduled time, *i.e.*, 12 o'clock midnight.

## *EN ROUTE to WINNIPEG.*

This morning the sun shines brightly and we are passing thousands of miles of cultivated ground and the wheat is being garnered by countless farmers. The straw is all destroyed. The immensity of productive land cannot be realised without seeing for oneself. From the observation car I see, in addition to the rich prairie, plains of golden grain,—wide spaces that are neither stale nor potentially unprofitable,—an ocean of land rising and falling gently as its marine prototype to the dim intangibility of the horizon. I see a wide stretch of scrub between train and lake; and occasionally the poles of an Indian tepee thrusting domestically above the green. I see the smoke of fires about which dull and incurious squaws are squatted. Little towns come into the picture, full of optimism for growth, so that when expansion is possible the lay-out at least will remain permanent.

Over all this, there is a sky of breath-taking azure blue, and the air invigorates like a draught of priceless wine. During the



breakfast period the trains cross the interprovincial boundary between Saskatchewan and Manitoba, after leaving Welby, Sask. Approaching Lazare, the railway follows the Valley of the Qu' Appelle, a river 270 miles in length, then crossing the Assiniboine River, follows its valley for twenty miles. The confluence of the Qu' Appelle and Assiniboine is near the point where the railway crosses the latter.

RIVERS, a mining camp, and a divisional point on the railway, is passed at midday. Across the valley, a mile or two east of Lazare, the ruins of Fort Ellice, originally a post of the Hudson's Bay Coy., are observed. Then continuing eastwards, we are in prairie land. This section is particularly noted for the fertility of its farms and market gardens, owing to its proximity to Lake Manitoba, thus being assured of abundance of rain during the growing season.

Portage-la-Prairie, or Portage for short, then comes into view. It is a busy little city of 7000 inhabitants and is a much favoured health resort.

About two o'clock we are on the outskirts of Winnipeg, having arrived earlier than was anticipated. Mrs. Easton and her two girls were at the station, and I spent a very pleasant hour with them. During the course of the afternoon, I took the opportunity of doing a little shopping in Eaton's and Hudson's Bay Stores. They are palatial buildings, and both of these concerns displayed a wonderful assortment of rich furs,—skins from all kinds of indigenous animals, and a heterogeneous assortment of practically everything that Canada can produce. The general look round was most interesting and instructive.

The tramway system here, is, I think, decidedly superior to ours. The conductor sits at a little table right in the middle of a very long car, and from that point controls the levers which open and shut the doors. He also distributes tickets in duplicate to each passenger, and this duplicate is passed into a box which is presumably the conductor's check. The passenger must pass the ticket office to get out, so that *no passenger can travel free*. The trams, moreover, are very long and very wide, and transfer tickets may be obtained from the conductor to any part of the city. Full information is always available as to points where the passenger has to change to another car. The conductor is invariably sympathetic to a stranger, and other occupants of the car are eager to help. It is really a very pleasant mode of travelling. Thus my second visit to Winnipeg, although short, was very delightful, and I met many of the other friends who had been so kind to me a few weeks previously. Eight o'clock saw us once more entrained, and a night's journey will bring us to the twin cities, Port Arthur and Fort William, situated at the head of Lake Superior.



## FORT WILLIAM and PORT ARTHUR, MANITOBA.

*Friday, 23rd September.*

About 8 o'clock this morning our trains steamed into Fort William and we were met by their Worships, the Mayors of the Twin Cities, on the station platform. These gentlemen were accompanied by the members of council of both cities, and for half an hour we were regaled with many eloquent addresses of welcome which, perhaps, were not as attentively listened to as they ought to have been, but who is fully alert mentally at 8 o'clock in the morning? All the speeches guided us as usual to the great mineral possibilities of the district, this being the great battle cry at every spot inhabited and uninhabited throughout the length and breadth of Canada, so that we were calmly prepared for the inevitable boosting up of the district, which we had at that moment invaded.

Placed on a long table on the platform were to be seen a collection of mineral samples, many of which shewed a visible rich gold and copper content. I observed, among the samples exhibited, for the first time during the trip, several pieces of Magnetite Ore. Owing to the fact that this ore requires to be calcined or roasted and otherwise treated before it can be used even in the primary process, the deposits have not created hitherto much general interest. In addition to Magnetite there are to be found in the district, limited quantities of Hematite and Siderite ores. Magnetite so far discovered, is also handicapped by being of variable quality and sometimes contains Titanium, an element which under present metallurgical practice, prevents the recovery of all the iron from the ore. In other instances, the Magnetite Ores while non-titaniferous, are of low grade or have a high sulphur content. Hematite ores in this district are fairly rich, but the "pockets" are negligible, so that in most cases, economical treatment is almost impossible. A Siderite deposit on the other hand, found in Ontario and known as the "Helen," is worthy of notice, as it is calculated to contain over 100 million tons of this particular ore, averaging 35% iron with low sulphur content, and it could be mined without any great difficulty, but then again in Ontario the absence of coalfields is a handicap.

There are many "buts" in the pathway of progress. Since coming home I have received innumerable blue prints, demonstrating the certainty of untold wealth to the man who can launch out the paltry sum of twenty million dollars in



order to secure several hundred square miles\* of proved Magnetite deposit. It was to me rather a flattering personal suggestion as I was evidently taken for a man of substance, but the substance in my case is, I am afraid, only to be calculated in *avoirdupois*.

I visited no mines here, and after an exchange of the usual courtesies which terminated the municipal welcome, we sailed round the beautiful harbour under the guidance of Mrs. King (a Belgian), who enjoyed the privilege of being the British Consul's wife, and a capital well-informed guide she proved to be. City gossip was cleverly blended with information regarding points of local interest and general historical data, and altogether we discovered her to be an encyclopædia of versatile knowledge. All around us were huge grain elevators, thirty-three in number, I believe, and they had a capacity for dealing with 65 million bushels of grain. Then there were many large pulp paper mills where we later on had the privilege of seeing huge logs of timber being converted into paper.

Fort William and Port Arthur could with advantage have a fusion of municipal interests, but they are as jealous of each other as is Edinburgh and Glasgow in our own little country. Both cities lie at the head of Lake Superior. In situation they are practically one, their respective territories being divided by the Neebing River, a stream down which pine logs float. Both being industrial centres of the world's greatest grain-elevator system, they have consequently a common interest. There were also shipyards, flour mills, engine and boiler-making shops, car factories, starch works and saw mills. The two cities with power plants at Cameron Falls and Kakabeka Falls have an excellent supply of hydro-electric energy for power and municipal purposes. The population of Fort William is over 23,000.

Port Arthur is the younger of the two. Lord Wolseley landed here in 1870 with an expedition on his way to suppress the Riel rebellion at Fort Garry (now Winnipeg). He named the place Prince Arthur's Landing, in honour of the Duke of Connaught, who was serving in Canada at that period. The name Port Arthur was conferred later, and at present the population is about 18,000. From the joint harbour, passenger pleasure steamers go to adjacent points on Thunder Bay and via Lake Superior and the Soo Canal, to Lakes Huron and Erie. This is certainly an important shipping and general industrial centre which will undoubtedly gain in importance as time slips on. If the rival municipal factions could only come to some agreement, they might manage to make their respective cities a little more attractive to the sight seer and incidentally with a little expense the streets *might be swept oftener*.



From Port Arthur splendid views were obtained of the "Sleeping Giant" Mountain, and the "Pie" Mountain, both names being conceived from the nature of their formation. The former, right on the summit of Thunder Cape, which is an immense cliff of basalt rock 1350 feet high, resembles the recumbent figure of the sleeping giant "Naniboz-ho," the great creating figure of the Ojibway tribe of Indians. The mythical story goes, that after turning on the water that subsequently filled the great lakes, the giant lay down to sleep, and still sleeps notwithstanding the fact that the waters of Lake Superior nearly reach to his knees. The perspective of the "Sleeping Giant" is marvellously perfect.

At Port Arthur Hotel midday we were entertained to a *recherché* lunch, during which I had an interesting chat with Dr. B. H. MacKay, Government metallurgist, Ottawa. I had met him frequently during our trip, and found him at all times most helpful in many mining and ore recovery problems, of which I only possessed a meagre knowledge. I recollect our friendly talks with much pleasure and deep appreciation.

Just before lunch was served one of Canada's premier bankers let me into the intricacies of mixing a cocktail. He was an absolute artist at the job and the precious fluid tasted like nectar. I happened to observe that many of the young ladies of the Congress party, whose eyes had often on festive occasions sparkled with the pleasure of the dance, acquired, after a sip of the delicious concoction, an additional optic sparkle, which distinctly accentuated the charm of their natural beauty and winsomeness. I am almost afraid to confess that I must have been likewise blissfully exhilarated, probably, however, caused by the seductive influence of environment. Strange though it may appear, I feel even now constrained to draw a happy and rapturous picture of this private room episode. I shall not readily forget it, and this delightful half hour is still a fragrant memory of my visit to Port Arthur.

In the rush off the boat at Port Arthur, Jean had a nasty fall on the quay, as the gentleman who was assisting her to land stumbled in the act. The bruise caused her a good deal of inconvenience and pain, but she bravely smiled through her tears.

In wet weather we rejoined the trains at Port Arthur at 4 o'clock and we are now speeding on to Noranda, the modern Klondyke of Canada.



## EN ROUTE to NORANDA,

VIA COCHRANE.

Again we are comfortably ensconced in our cabins, and after a run of about 80 miles, the village of Nipigon at the mouth of Nipigon River is sighted. An hour later and we arrive at Orient Bay, where the famous Nipigon trout may be taken in season, and owing to the great volume and *strength* of the *current*, the *fish* are *large of fin and tail*, thus affording capital sport.

Leaving Orient Bay we travel north easterly to Nakina on the main line of the Canadian National Railway, and thence easterly to Taschereau, *via* Cochrane. Another day is almost over, and to-morrow morning will see us back at Cochrane, which is the junction point of the Canadian National, and the Temiskaming and Northern Ontario Railways.

Snow and sleet are falling heavily. The country is wild, full of dense brushwood—with myriads of large pot holes of swampy ground,—called in Canadian parlance muskeg, which is covered over where solitary foot communication is necessary between camps or villages,—with slender fir trees, which make an unstable support, but which evidently serve the purpose. My thoughts naturally hark back to the muskeg difficulties I encountered at Long Lake, and I shudder convulsively at the recollection.

Mr. and Mrs. Mungo MacKay have just left my cabin after saying "good-bye" for the next ten days, during which time they intend to be at Bracebridge as the guests of Canadian friends.

Changing at Cochrane at an early hour in the morning, a day's travelling brings them to their destination, and I have arranged to rejoin them at Montreal. They were the partners of my joys and sorrows during the whole trip, and I am more than sorry to lose their genial and kindly companionship even for a few days. Unselfish and considerate always (and these attributes are priceless during an extended journey of several weeks), I owe much of the pleasure of my holiday to Mr. and Mrs. MacKay. I hope they will have a comfortable and pleasant journey.

The weather is raw and cold and I "snig" out the light in my lonely cabin at midnight.



## COCHRANE.

*Saturday, 24th September.*

After a short stop at Cochrane early in the morning, the trains continued due east, crossing the Abitibi River, which flows northwards to James Bay from Lake Abitibi, situated to the south of the railway. The Abitibi River in pioneer days served as a canoe route to and from the waters of James Bay, but to-day it is noted for the development of its falls and rapids as a source of hydro-electric power for the mines, pulp and paper, and saw mills of Northern Ontario.

The railway now skirts the northern shores of Lake Abitibi (covering an area of 356 square miles and affording excellent hunting, fishing and canoeing) and passing Goodwin, Ont., eventually reaches the interprovincial boundary between Ontario and Quebec. At two o'clock Taschereau, a divisional point, is overtaken and we are switched on to a new branch line connecting Taschereau with Noranda—such a line! Constructed only twelve months previously, over pools of stagnant water, bogs and dangerous muskegs, the passage of our heavy trains constituted a grave peril. Over creaking trestle bridges we went, the ponderous carriages causing the timber supports to groan and shiver ominously. The experiment of conducting such heavy trains along what I would term a temporary line was decidedly risky, and to see large gangs of railway men stationed at short distances along the line anxiously observing our passage, gave me some disquieting thoughts. The situation reminded me of the true story of an undertaker who, when on holiday at a bathing resort, spent most of his time watching the rather dangerous swimming pool with *an eye to business* should a fatality take place. We had 45 miles of the penetration of bush and muskeg country, and I was glad when we eventually detrained at Noranda safe, but undoubtedly scared, about 5 o'clock in the afternoon.

Canadian engines are equipped with a steam whistle in addition to the usual clanging bell, and for some unknown reason the former got out of hand at this juncture, so that our arrival at Noranda Junction was heralded by discordant incessant whistling. The townsfolk were more alarmed than we were at the occurrence, as they sensed a railway accident of some kind, but the passengers evidently thought it might be merely a warning to trespassers and wild animals to keep off the line. When the train came to a standstill, however, the whistle continued to sound, and we then learned that the *valve had jammed*. Frantic efforts were made by the locomotive engineer to stop the noise but it was of no avail and we had



to suffer the unearthly screeching until the steam was absolutely spent. It was really very funny, as the engine actually exhausted its potentialities *through the whistle*, and the sound only stopped when no more steam was available. The incident could well be likened to a healthy and vigorous child crying itself to sleep. I am certain that a Scotch plumber would have unhesitatingly flattened the offending part *with a hammer*. Repairs were carried through during the night, however, and control was thereby regained, to the relief of all concerned.

In lashing rain we were welcomed by the Rouyn Mines Management and thereafter clothed in oilskins and sou'westers we started to explore the camping town of Noranda.

## ROUYN, NORANDA.

I must say that this is a wonderful mushroom town (in the making). The streets are a gory mess of clay and mud, ankle deep, and the pavements are composed of *sawn planks*. On the outskirts of the town the path from the station comprised a single plank,—a veritable duck walk,—and the failing light caused many a slip into the mire. I secured two electric torches in the town, at a price four times as dear as similar torches could be bought at home, but they kept me safe from disaster on my return journey. The streets are marked out on the well ordered right angle system, and in the years to come Noranda should be a City of considerable importance, if the mine turns out to be the rich discovery that is claimed for it.



Main Street, Rouyn—A camp town in the making



In the evening a banquet was given in the Camp hall, at which function moose flesh was the *piece de resistance*. It was served as a stew, and was much more tender than beef, and possessing at the same time an appetising gamey flavour. The following is a copy of the very characteristic menu drawn up for the occasion. The names of the dishes as will be observed are highly "mineralised."

### MENU.

Schist a la Bagamac.	
Newber Olives.	Granite Pickles.
Chalcopryrite Relish.	
Oysters Ribago.	Sulphide Cocktail.
Capital Rouyn Trout—Osisko Rouyn Pike.	
Stadacona Salad.	
Brownlee Moose.	Pirate Sauce.
Diabase Chicken a la Noranda.	
Amulet Roast Pork.	Boischatel Ham.
Carrots Gabro.	
Conglomerate of Vegetables.	
Duprat Fruits.	Grover-Daley Ice Cream.
Granada Cheese—Rhyolite Biscuits.	
Laval Tea.	Towagamac Coffee.
Aconda Wine.	Corona Beer.
United Verde Cigars.	
Laurier Cigarettes.	

The hall was crowded—too crowded—as when dancing was indulged in later, the whole building shook. The population is for the most part French, and we were entertained to an exhibition of French dancing, but the dancing appeared to me to be a mixture of the quadrille, lancers and Scotch reel, with Paddy o' Rafferty stuck on at the end. The M.C. sang out the different movements to the dancers in unison with the music as it was played. It was a very unconvincing performance, but after all, these good people were doing their best to make us enjoy ourselves. The usual speeches were on tap, and those given by the Mayor and the Pioneer Priest were particularly good. The latter gentleman managed to secure the price of a brick (one dollar) for his new Church from practically every guest,—such was the power of his appeal to the generosity of his willing victims. Towards midnight we sloughed through the morass back to the comfort of our train cabins, and were soon oblivious to the fact that we were in the region of untold wealth. Sleep, nature's sweet refresher, claimed our weary bodies and we were too tired to dream.



*Sunday, 25th September.*

(HORNE CORPORATION)

The morning dawned brightly but the mud was still in evidence all around, its appearance being variegated with many shoe impressions which were now filled with muddy water. We naturally remained within the precincts of our respective cabins after the discomfiting experience of the previous evening, and when the train started for the mines a new experience awaited us, as the groaning and bumping of the carriages awakened us to the fact that the track had, during the night, subsided with the weight of the train. The undulations were alarming, but true to our luck, we cleared all dangers and proceeded at a snail's pace to the scene of mining operations at Rouyn.

Here we were informed that copper ore had been discovered down to 300 feet, with 30% pure copper content. I picked up two pieces of ore from the ground and these I will bring home. They will both assay to 27%, the smaller piece being more sulphurous. The method of finding veins here, is to dig trenches, and bore with diamond bores from the points on the surface where rich ore is discovered. I saw many of these trenches, and the samples I secured were picked out from the shallow cuts.

The Smelter which will deal with 1000 tons per day is not yet in operation, but will be in three or four weeks. We visited the Smelter during the course of the forenoon, and as the plant was silent, I absorbed more interesting detail than I would have done, had there been the usual racket of running machinery. I observed eight wedge roasters, 25 feet diameter each, with seven brick roasting hearths and a brick drying hearth. There were two heat recuperators to transfer the heat in the gases to the air used in combustion of the fuel. Further, two reverberatory furnaces, 25 feet by 100 feet, placed inside of brickwork, were charged by three ton cars and Storage Battery locomotives. Pulverised coal is used for fuel.

The plant includes two Pierce Smith converters, 12 feet dia. by 26 feet long, two casting machines for casting blister copper, two forty ton electric cranes for the converter aisle, and one 10-ton electric crane in the shipping room. Thirty-four ore bins are placed over the roaster furnaces with a capacity of about 9000 tons of ore, and 20 bins underneath, with a capacity of about 2000 tons of flux and calcines. A primary crusher, 46 feet by 66 feet, and a secondary crusher, 47 feet by 84 feet, have also been constructed, and I would say that this wonderful recovery proposition as contained in the Noranda Smelter is a triumph of the most up-to-date engineering and chemical science.



Noranda shares have had a remarkable history. Original 100 dollar shares were divided some time ago into one hundred shares of 1 dollar each, and these 1 dollar shares stand at 25 dollars each to-day.

I received much attention, courtesy and hospitality from Mr. A. M. Hogg, a young Scottish engineer, who occupied an important position with the Horne Corporation, and I have also to acknowledge several characteristic photos of Noranda and district which he kindly sent to my home address.

We left Noranda at two o'clock by way of Taschereau, where we stopped for half an hour. On the platform I came across a prospector who had been originally connected with the Rouyn Mines, but he had severed his connection *too early*. He was brimful of pioneer stories and being a bit of a wag, related that he had private information about a five feet vein of porridge being discovered in the Highlands of Scotland, and he intended to stake his claim immediately. The poor chap was evidently down in his luck, but he still retained an attractive degree of optimism and humour.

It is intensely cold at Taschereau and snow is falling. This is really a strange country. In the winter the people cannot be buried owing to the ice and snow, and are kept in cold storage in morgues or mortuaries till the snow disappears, and the ground can be dug. I can well believe it.

The ladies of our "Blue" train are having a tea party this afternoon, and there is great excitement. We gave them a cheer as they passed along the corridors to the dining room.

We are now en route for Quebec, and the surrounding country was at one time to a great extent populated by Indians. We pass the Harricanaw River which is navigable, and is connected with numerous lakes and streams, all of which teem with fish. There are also millions of wild duck. It is undoubtedly a sportsman's country.

I spent the rest of the day in the train. There was an engine breakdown in a blizzard of snow, but we were comfortable enough and the engine drivers are now trying to make up for lost time.



## EN ROUTE from NORANDA to QUEBEC

The part of the country we are at the moment traversing may be aptly termed, from an agricultural standpoint, New Quebec, for, from approximately Senneterre to the boundary between Quebec and Ontario, land is being taken up rapidly by settlers from the older parts of the province. In the migration to this vast new district a unique and sound policy has been followed. From the densely populated parishes around Old Quebec, groups of people from each parish have been brought together and have settled under similar conditions in the new area, so that their social connections remain the same, and the usual hardship of going into a country surrounded by strangers is thereby avoided. Thus little coteries of friends were transferred *en bloc* to this rich part of the country, where their energies will have wider scope. The idea is admirable and so successful have these colonization efforts been, that up to the end of 1924, over 21,000 settlers have taken advantage of the scheme. The Provincial Government have been most helpful in encouraging this ideal system of migration, and are spending large sums of money in connecting the parishes or townlets by roadways.

AMOS and MAKAMIK are the most important business centres within this district of colonizing effort.

Darkness now precludes any further observations regarding the country we are passing through. Before retiring to rest, however, I visited Mr. Hamilton (Rosewell) in his cabin, and we enjoyed a pleasant hour together recounting many details of our wonderful trip. Mr. Hamilton's keen sense of humour revealed a delightful phase of his personality which I had not in my business dealings with him at home previously discerned. His "crinkly" smile always presaged some witty observation, and my sister and I both acknowledge many great kindnesses received from Mr. Hamilton covering the entire duration of the tour.

Occupants of our "Blue" train still remain in perfect harmony, and our comfort has been at all times assured by the assiduous attention and wise guidance of our commanding officer, Major Riley, whose great services deservedly won our most sincere and hearty appreciation. In passing his cabin door I receive a cheery "good night" and as it is again midnight, I must snatch a few hours sleep before Quebec comes again into the picture.



## QUEBEC.

*Monday, 26th September.*

We are now approaching Quebec through immense tracts of forest land all tinted in glorious autumnal shades of varied colour. Then in contrast to this gorgeous picture, we observe great spaces of cultivated ground, the grain products of which have been safely garnered. The rain falls in torrents but the beauty of the passing scene remains unspoiled. To the eye, eager for kaleidoscope variety in colour, a satisfying and ravishing effect is obtained in the bewildering number of autumn leaf shades observed on all sides, these being accentuated by the bright glitter of the falling rain in the clear morning air.

The trains glided into Quebec at eight o'clock a.m. and after a visit to the dining car, which has somehow or other become an *involuntary habit* of the members of Congress, we transferred to that famous hotel, the Chateau Frontenac, where I had booked accommodation by telegram two days previously. Here a Congress office for registration and general information was opened, transportation and Congress officials being in constant attendance. Truly, we are and have been well looked after.

Under the chairmanship of the Hon. Philippe Paradis, several technical papers were read and submitted for discussion in the hotel special committee room. Thereafter a concluding general session was held for the consideration of resolutions and other business, the latter comprising the heartiest thanks of the members for the magnificent organization of a memorable trip, carried through so successfully by the officials of the Canadian Institute of Mining and Metallurgy. The whole gamut of phraseology was exploited in attempting to say "thank you" in sufficiently appreciative terms. Our hearts were full, and our Canadian friends knew well that we should never forget our wonderful journey, which revealed to us the almost inexhaustible potentialities of the Dominion of Canada.

I described my impressions of Quebec when we landed there for a few hours from the "Alaunia," before disembarking finally at Montreal six weeks previously and I have little to add. The same unsavoury dirty streets and decaying buildings met the eye, but, of course, there are many fine buildings throughout the city, which perhaps tend to throw the more unpretentious parts into bolder and unfortunate relief. Squalor and riches appear to go hand in hand, but as the most of the inhabitants are French, or of French extraction,



colonization ideas may be cruder than ours. In any case Quebec seems to stand still, and the cream of the population is apparently being diverted to New Quebec, as previously mentioned, to the detriment of the remaining self-satisfied Gallic residents who are left behind. For a British possession I certainly was surprised to discover that the English language was not understood in many shops, and *policemen spoke French only*.

After lunch in the Chateau Frontenac, many of us motored to the Montmorency Falls, where a hydro-electric station generates for the surrounding industrial requirements,—the bulk of the water, in summer time passing through the turbines and almost exhausting the Falls. Typically French houses all along the route gave the district a foreign appearance, but we must of course remember the strangle hold which France had in East Canada, before Wolfe's onslaught brought the entire Dominion under the sway of British rule. A country may be conquered by force of arms, but the characteristics of a nation die hard, and in East Canada conservative French patriotism and customs will, in my opinion, for *ever remain in evidence*.

After dinner we transferred again to our respective trains at any time before one a.m., at which hour we were due to leave. There was no outstanding attraction in the town, and most of us engaged in dancing at the hotel, till almost train time. Much money was expended at the bazaar counter on expensive trifles which in many cases had their origin in London.

Britishers invariably lose their insular ideas of thrift when they go abroad. Remorse follows in their calmer moments. This lavish and careless expenditure may be described as one of the idiosyncrasies of *holiday madness*.

Now one o'clock and we are speeding in the darkness across the Quebec Bridge, over the St. Lawrence near Cap Rouge. To-morrow will see us at Thetford, the big centre of the famous Asbestos Mines.



## *EN ROUTE from QUEBEC,* TO THETFORD MINES AND SHERBROOKE

*Tuesday, 27th September.*

After crossing Quebec Bridge which is operated by Canadian National Railways, our train was switched to the lines of the Quebec Central Railway, which lines we now follow to Thetford Asbestos Mines and the town of Sherbrooke. Within this area, for about sixty miles, runs a stratified deposit of rock asbestos, a magnesium calcite, cropping up to the surface,—also many hundreds of feet in vertical thickness,—all chiefly worked in huge open quarries, or Glory Holes, to use the common term. The general system of working is by overhead ropeways; these being used for extraction, raising or lowering and hauling in and out the loaded or empty skips, which automatically tips into a wagon loading chute prior to first crushing.

It made me dizzy looking into the great depths of these Glory Holes, and there were plenty of them. This will be fully appreciated when the fact is borne home to us that these mines produce about eighty per cent. of the world's requirements in asbestos and, moreover, possess reserves sufficient to last for centuries to come. Asbestos is a wonderful product of inorganic (?) nature. It is a physical paradox, a mineralogical vegetable, fibrous and crystalline, elastic and brittle, capable of being carded, spun and woven like wool, flax or silk. The fiercest heat cannot consume it, although it looks as combustible as tow.

The different Companies operating are :—The Bell Asbestos Mines Ltd.; The Johnson Coy.; The Canadian Asbestos Corporation Ltd., and others, but these are the principal producing concerns.

I visited Bell's Asbestos Mines and Mills, also the Canadian Asbestos Corporation Mines and Mills and the experience was novel and interesting. I took the opportunity of chipping off several samples of asbestos rock for my mineral collection which has now become formidable. It is simply wonderful to see this peculiar rock with a fibrous content. I chose to join the Geological Section of our party for the day, and my knowledge of rock formation with all its attendant peculiarities is rapidly growing to such an extent that I can now rattle off quite a number of bewildering "ites" to the admiration and awestruck wonder of people *who don't know*. There is what geologists term "pyrotite," and this is contiguous to



"serpentine." Against this "serpentine" gathers a fibrous element called asbestos. Of this "serpentine" group, the real name of the silky white fibre which we call asbestos, is "chrysotile." When blue, it is termed "crocidolite." The group of real commercial interest is the "amphibole" and the one of less importance is called "hornblende," and *there you are*. I hope my readers understand these technical terms, as owing to physical exhaustion in putting them into writing, I want to be excused from dissecting what, to my mind, are simply hieroglyphics. If I attempt at any time to air my knowledge in this direction, to those who have studied geology, I hastily change the subject when I observe any *slight elevation of the eyebrows*.

In the case of thick adhesions of asbestos to the parent, or so called "serpentine" rock, the rock itself is simply knocked off with hand hammers, and sent to the "cobbing" shed to be cleaned, sorted and dressed. This product is known as *Crude* and commands the highest prices. When, however, the asbestos is found impregnated in small quantities throughout the rock, or if the layer of asbestos is comparatively thin, the material is sent as it comes from the mine to the mill, where it is crushed and eventually goes to the pulveriser. The process is simple. The blasted rock is conveyed to the crushers or breakers, then to rotary driers where it is thoroughly dried by hot air. It is then re-crushed, screened and pulverised to the consistency of sand. It next goes over shaking screens from which the asbestos—now well opened out,—is sucked up by vacuum fans and discharged into dusting machines. From there it passes over grading screens into bags and is ready for the market. This bagging is all done by machinery.

In the mills and around the buildings there lies a thick mantle of white dust. Much special machinery has been installed to recover the pure asbestos from the rock, by means of crushing, screening and blowing as already described, and it is calculated that about eight per cent. is extracted. Refuse heaps of the tailings have reached alarming proportions throughout the district and I just wonder if these heaps could not be utilised in the manufacture of *bricks* or *artificial stone* in the near future.

Throughout our inspection of the mills, we were simply veiled in white dust, which caused rather an uncomfortable sensation, but before leaving, a blast of compressed air forced through an 1½ inch hose pipe cleared all traces of grit and impurities from our soiled garments. The workmen wear no masks, but are apparently perfectly healthy.

The forenoon thus passed pleasantly, all information regarding this important local industry being at our disposal through the kindness of the various mine officials who



separated us into groups on our arrival. Each group was piloted through any of the mines and mills that were specially selected by the members themselves, and every item of interest was carefully explained, these explanations being courteously elaborated when desired. It is no wonder, therefore, that my brain was filled with geological and unpronounceable technical terms.

Entraining shortly after lunch, we stopped at Sherbrooke for half an hour, and are now on the last lap of the journey, as we expect to arrive once again in Montreal about eight o'clock this evening.

## MONTREAL.

*Wednesday, 28th September.*

Here we are back at Montreal and our 8000 miles tour is practically over.

Arriving at eight o'clock last night, Jean and I got our luggage collected together, (and a fair pile it was) and after almost endless adieux and acknowledgments to train attendants and officials of every description, a taxi conveyed us to the Ritz-Carlton Hotel, where magnificent bath bedrooms had been reserved for us. The appointments were very luxurious, and our comfort was unquestionably assured for the duration of our stay in Montreal.

The motor which brought us along, narrowly missed knocking down a man in one of the principal streets. He seemed to lose his head and reeled in front of a tram car coming in the opposite direction, with the result that he was run over and killed. I heard our driver shout "Hey, boy," and these were the last words the poor chap heard, if he did hear them. He was pulled out a veritable bundle of crimson rags, and thrown on one side awaiting the mortuary van. There was no excitement, no pity. He was only a down-and-outer, otherwise a member of the "bum" species, and lives are cheap in this country. Our "Blue" train ran over and killed a man when entering Vancouver, and the incident was scarcely commented upon.

To-day is fine, and the little chipmunks are everywhere, even on the streets.

Jean has gone to get her hair dressed and I am doing some shopping.

I called at Congress Headquarters and received a bundle of arrears of letters.



Met hosts of our fellow travellers ; some are leaving to-day by the " Ausonia " and others are going to New York. Mr. Hamilton sails in the " Ausonia " and we have just had a tearful farewell till we meet again in Scotland.



Mr. Jas. Hamilton, Rosewell

Jean and I are staying here for two days, and intend spending a week at Toronto and Niagara. As mentioned before, we have arranged to rejoin Mr. and Mrs. MacKay in Montreal at the end of that period when we all expect to travel home together in the " Athenia " for Glasgow.

I rather regret that I did not include New York in my itinerary, as I could have overtaken it easily within the week at my disposal, but there may be a further opportunity in the years to come.

Among those from whom I regretfully parted at Montreal were Mr. Wm. Utz, 80 White Street, New York (Managing Director of Jenkins Brothers, the noted Rubber and Packing people); Mr. Robert Hatfield Irons, President, Central Iron & Steel Coy., Harrisburg, Pa. ; Mr. Walter T. Knowles, of W. T. Knowles & Sons, Ltd., Ashgrove Sanitary Pipe Works, Elland, England ; Mr. George Spencer, sen., and Mr. George Spencer, jun., of Ilkeston, England ; Major Briggs, and also his brother and his nephew, Mr. Barron ; Mr. Miles of Shell Mex ; Mr. and Mrs. Craib, South Africa ; Mr. and Mrs. Woodburn, South Africa ; Mr. and Mrs.



H. O. Dixon, Bolton, England ; Major Riley of Montreal ; "Spike" MacKenzie of Montreal ; Mr. Cochrane-Carr, sen., and Mr. Cochrane-Carr, junr., Newcastle, England ; and a host of others whose interests had also been mine during the previous six weeks.

In my early days at Waverley Works, Coatbridge, the Company enjoyed a large share of business from Drummond M'Call & Coy., of Montreal. I had from that time been obsessed with a desire to visit these people should opportunity arise, and I seized the chance in the afternoon. Securing a taxi I was soon at the palatial offices of this firm, and was in the act of taking out my business card to hand to the commissionaire when a voice behind him exclaimed "You don't need to present a card here, you are R. L. P. "Well, I'm jiggered," says I "Who has been tracking me?" "Right-oh," says the voice, "I ought to know you, because I was a member of your choir when you were organist of Wellpark Church." My name," he continued, "is James Aitken. I married a Wellpark girl whom you knew well, Miss Forgan. I am assistant to the Vice-President of the Company, Mr. Hutchison, who was trained in P. & W. MacLellan's, and I have been in Montreal about 15 years. I have also to say that if your sister and you don't come along to my home to-night for supper, there will be a devil of a row and you'll be in it."

This was a right good rough and ready welcome in all conscience, and, needless to say, I readily accepted the invitation.

The evening we spent with Mr. and Mrs. Aitken and their children was delightful and full of pleasurable reminiscence, and we shall not readily forget their great kindness and unbounded hospitality.

During our stay in Montreal we visited all the principal Stores, and the biggest of these is Eaton's. In the Indian Department at Eaton's I met a half caste Indian girl, Tessie De-Lisle, with whom I left an order for a male and female Indian costume. She is going to make them herself and the rig-out for me is to be the same as was worn by her grandfather, a full blooded Cree Indian chief. She lives at the camp reservation at Caughnawaga. Incidentally she is a very pretty girl and knowing that all Indians are honourable *I paid her in advance.*

The two days passed otherwise uneventfully, and to-night we travel by sleeper to Toronto. We are leaving our heavy luggage at the Ritz-Carlton Hotel, where we shall pick it up on our return.

A point worth noting with regard to this hotel is that for my bath-bedroom only, I paid 12 dollars each night. Food was for the most part taken in restaurants throughout the city.



## EN ROUTE from MONTREAL to TORONTO.

*Wednesday, 28th September (continued)*

Jean and I left the hotel in time for the night express for Toronto. The Canadian National Railway Station is inexpressibly dirty and out of date. The porters and all officials speak French. As usual, our train attendants were coloured men. They were all shades from deep black to yellowish white. As I wrote in one of my immortal poems—

"The porters were each of a different hue,  
The reason, I fancy, has puzzled a few."

During my Canadian travels with the Congress, I had the advantage of a comfortable cabin in the "Blue" train. To-night there is no cabin. A curtain only separates me from other humanity. Jean is sleeping opposite, on the other side of the corridor, and Heaven knows how I am to dress in the morning. It is only for a night, however, and if one of these niggers, or *angels of darkness* disturbs my slumbers another tragedy will go up on the slate.

I notice this train goes through to Detroit, but I am not travelling so far to-night.

I had a job to undress, in bed, and it strikes me that these cute negro attendants may find quite a lot of loose silver that is bound to slide out of trouser pockets, in the struggle of undressing and dressing, for if one attempts even to sit on the bed, there is the danger of brain concussion against the hard boards of the top berth. Both processes must be undertaken in a *horizontal position*. I have come to the conclusion that the best method in future would be to undress in the smoke room, don pyjamas, and place the day wearing apparel in a suit case. The process could be reversed in the morning. I think this is a *priceless suggestion*, as if this plan were adopted, night travel under similar conditions would be comparatively comfortable. I find the heat in the train almost unbearable, but I must remember I am not now travelling "de luxe." I feel that I should now attempt to get some sleep.



## TORONTO.

*Thursday, 29th September.*

Arriving early in the morning, I slid into my garments after some painful reminders of a very low berth ceiling, and together with many other sleepy-eyed and uncommunicative passengers, detrained at Toronto. Jean and I immediately made tracks for the King Edward Hotel, which is one of the finest in the city. We were fortunate in securing bath bedrooms again, and after our luggage was brought in, the comfort and luxury of a bath was our first thought.

The weather is fearfully hot, but we have no reason to hurry around, as we shall be resident in Toronto till Sunday. In the forenoon I made many business calls on behalf of the Grit Coy., of Scotland. Most of the people I saw hailed from Aberdeen, or were otherwise of Scottish extraction, and I must again say that nowhere have I experienced such friendly business cordiality, as was extended to me round about Toronto. Even in subsequent business letters which followed me home, many kind expressions of remembrance and regard were part and parcel of orders and enquiries sent to my firm. I shall always retain the memory of the welcome of these new friends with the warmest reciprocal feelings, and I hope they will give me an opportunity of requiting their goodness in some measure, if they at any time visit the Mother Country. For lunch to-day I had a moose steak (grilled) and it was exceedingly good. The waitress insisted on me taking sweets, as she said the price of the lunch included this course, but when anybody tackles a moose steak with mushrooms, a further tax on his waist buttons is *risky*.

Shopping and visiting places of interest in the city, took up the afternoon.

Met Mr. and Mrs. Balmer Neilly, who both had been with us during the Congress trip. Mr. Neilly is Vice-President of the M'Intyre Mines, and Jean became very friendly with Mrs. Neilly at Vancouver. Mrs. Neilly took us to Eaton's for afternoon tea, but these ladies' functions are not in my line, and I would rather have been "jawing" with some of my male friends about stocks and shares, with possible soft refreshments at intervals. In the evening we hunted around for a Cinema, and were surprised to find how few there were in Toronto.

It took us all our time to cross the streets without mishap. Taxis and cars are driven at a terrific pace, and around corners no slackening of speed takes place, so that a tame ending to my life appeared imminent every five minutes.



It seemed a tragic pity that my demise should be so prosaic after all the real wild dangers that I had hitherto successfully avoided, so I determined to be, and was jolly careful. As in Paris, there is no speed limit in Toronto.

I must now be off to bed as the clock is striking twelve.

### *Friday, 30th September.*

I took a light breakfast at a Cafeteria, and thereafter returned to the hotel, where I entered the hairdressing saloon, and indulged in the luxury of having my hair cut, singed and shampooed, my hands manicured and my boots brushed, all at the same time—I mean simultaneously—by different artistes in their own particular line. I only required a tailor, masseur, dentist, a doctor, (to certify temperature) and a nurse to deal with the rest of my requirements, and the finished product would be sure to attract attention.

In conversation with the barber, he said his name was Alexander M'Intyre from Overtown, near Wishaw. He further indicated that his wife was a sister of Mr. Gemmell of Auchinraith. His wife is presently ill with neuritis caused by the extremes of climate in this country. Mr. Gemmell's daughter was staying with them in Toronto last year. It was a curious coincidence, as only this morning, I received a letter from home saying that Mr. Gemmell had been visiting "South Park" a fortnight previously and spent the afternoon with my brother John, playing golf. Mr. M'Intyre seemed an exceedingly nice chap and is doing well. Once again, let me say that the world is a small one.

There were innumerable "shoe shines" throughout the basement of the hotel, and on the ground floor a Pharmacy was included in the round of inside shops. Like other large Canadian hotels, there was the usual bazaar, also on the ground floor, with a tempting display of dainty trinkets, dear to womenkind, at prices that caused many prospective buyers to shiver and *pass on*.

I found that each bedroom in this hotel had a bath, a large one and also a foot bath, wash stand, with other appurtenances such as scented soap, bath salts and innumerable towels. The bedrooms were brilliantly lighted. There was also a telephone, pens, ink and paper, and a special lock-fast drawer, the key for which remains in possession of the guest during the period of residence.

I confess the telephone girls beat me with their articulation and the funny thing is they *don't understand mine*. When speaking to them face to face, their words are fairly intelligible, but over the wire the accent is a complete mutilation of the English language. The tongue seems to slip half way down



their throats, and the space where the tongue should be, is apparently *filled with roller bearings*. This is quite an original illustration and it is a blinking good one.

I am writing this rather irresponsible epistle clothed in my pyjamas only, and the windows are wide open. It is hot and sultry. I have had three baths to-day, but during my last six weeks experience in the train, when at times I hadn't a bath for ten days, I have some leeway to make up.

I had a chop suey to-night. In the event of this term not being clear, it happened in this case to be an ice with grated almonds and something else that was not explained to me. I thought a chop suey was a Chinese chop lubricated with machinery oil.

I am now off to bed. I am up three storeys and Jean sleeps in the sixteenth floor. *We occasionally speak to each other by telephone.*

### *Saturday, 1st October.*

I am still at the King Edward Hotel and enjoying the rest. Mr. Neilly, whom I saw this morning, owns a small colliery near Jasper, so that he has varied interests. He has arranged to take us both for a motor run this afternoon, and I am looking forward to a long chat with an outstandingly successful business man.

Mr. Neilly mentioned that in America the United Steel Corporation will put up their prices steadily during the next 10 years. They are at present buying hematite ore outside their own property, and theirs is the most valuable concession in America—the Massaba Range—which is high grade, containing 80% iron. This they are meanwhile keeping in reserve. Later on, perhaps, the Newfoundland Nubano low grade ore, with 40% to 50% iron content, may be exploited, but this is yet a far cry.

DRILL STEEL (Porcupine M'Intyre Mines). Mr. Neilly is not satisfied with the drill steel he is getting from two firms in England. The drill gives 1200 percussions a minute and must have special properties of resistance.

### RITCHEY & COY., LTD.

STEEL GRIT—I had a long chat with Mr. Ritchey this forenoon, and his ideas are summarised as follows:—He keeps in stock 90 tons grit, and his supply till the spring is meantime met. He lost an order for two car loads (30 tons each) a month or two ago because an Aberdeen firm failed him with delivery. America secured the order and in that country large stocks are kept. Consequently they are able to fill large



indents promptly. It takes 5-6 days to convey from the States to Canada. Duty for grit from America is 20 dollars per ton. I understand order was taken at 5% over cost.

In the event of an agency, prices would require to be fixed twice a year, i.e., in December and July. Freight from Glasgow for Vancouver *via* Panama Canal is the same as delivering in Toronto *via* Montreal. Freight from Glasgow to Philadelphia and Baltimore is equal to Montreal delivery. Carriage from Montreal to Toronto is 4½ dollars. The principal markets are at St. John, Vancouver, Toronto, Montreal and Barre (Vermont, U.S.A.).

I believe the freight from Glasgow to Montreal is about eight dollars per ton. Mr. Ritchey proposes to take delivery f.o.b. Glasgow.

Should this agency materialise, I am afraid the Grit Company will require to *buy up the City of Coatdyke* and get its shares quoted on the Stock market.

In the afternoon we enjoyed a comprehensive motor run with Mr. and Mrs. Neilly, who brought their car to the hotel door. After lunching together, a start was made at two o'clock and we were soon in the midst of most beautiful scenery with Lake Ontario on the left,—quaint little villages, Indian encampments, and neat white farm houses, (many of which made a prosperous side-line by breeding racoons for their valuable skins)—coming all into the picture as we sped along. Mr. Neilly proved to be an expert driver, and at the same time, a brilliant and instructive conversationalist, so that I had a wonderful and memorable run. Jean and Mrs. Neilly sat behind us and talked incessantly *as ladies generally do*.

We arrived eventually at Hamilton, Ont., where I had visited the Steel Works several weeks previously, but on that occasion I had not time to see the town. It is a very large town with about 80,000 inhabitants and, as indicated before, is an important centre of the steel industry. After dinner in the hotel, we again entered the car and in the cool of the evening, had an entrancing run back to Toronto, under a star spangled sky and a bright moon.

We can only acknowledge with profound gratitude this further act of warmhearted friendship and hospitality from typical Canadian citizens who so willingly sacrificed their own interests to enhance the pleasure of our stay in their beautiful country. Such gracious acts as these will live long in our memory.

Mr. Neilly introduced me to the President of the M'Intyre Mines, Mr. Bickell, who is a great friend of Sir Harry M'Gowan. Sir Harry spent his holiday this year with Mr. Bickell, who is a bachelor and lives in a lovely old world home outside Toronto.



Bidding adieu to our kind friends whom we expect to see to-morrow before we leave for Niagara, we lost no time in seeking our respective apartments, although the enticing sound of dance music echoed through the corridors. To a tired man, dancing to-night has no attractions, and I dutifully add a few pages to my diary, indulge in a refreshing bath, open the windows, and go to bed.

### *Sunday, 2nd October.*

This day proved to be a restful one without incident worthy of particular record. The intense heat which still prevailed encouraged me to plunge into my luxurious bath at intervals, so that my temperature remained normal. A stroll through the city in the forenoon, revealed the fact that Toronto was a city of Church-goers. My conscience, however, was placid and untroubled. I was on holiday.

The residential districts possess much beauty and charm, with their pleasant and spacious homes, well kept lawns, gardens, and symmetrical avenues of trees, many such avenues even adorning the streets. Truly, Toronto itself is a beautiful city with many shady nooks, grass plots and public gardens, which must be a delight to the jaded town dweller.

Mr. and Mrs. Neilly honoured us with their presence at lunch to-day in our hotel, and they ungrudgingly cancelled a previous engagement to give us the pleasure of their delightful society during the remaining hours of our sojourn in Toronto. This farewell favour was indeed a kindly thought and the time passed only too quickly. At five o'clock we said good-bye to these warm-hearted friends and boarded the train for Niagara Falls half an hour later.

## NIAGARA FALLS

(FOX HEAD INN)

Landed at Niagara to-night at 8 o'clock, only to find that Clifton House Hotel closes to-morrow morning for the season. This applies to many hotels in Canada, their tenure of occupancy only extending to four months. These months are termed the "fleeing" season. We, however, found accommodation almost next door, at the "Fox Head." The "Fox Head" is a nice little unpretentious hotel, open all the year round. Jean and I secured bath bedrooms and the outlook is over the Falls. The windows are open and the noise of rushing waters is continuously in our ears. To-night is stifling hot, and as the spray of the Falls permeates the entire atmosphere, I do not suppose this district is too healthy.



The parlour car in which we came from Toronto this afternoon was very comfortable. There was a row of swivel easy chairs down each side of the carriage, with adjustable tables which could be fixed to the window ledge, so that a parlour car is just a Pullman as we know it. No smoking is allowed in the cars, but there is a compartment for this purpose at the end of each carriage in the form of a large square room with cushioned seats around. A very nice lavatory is adjacent.

Our hotel is brilliantly lighted. To put on the light, a button, like an electric bell push, is pressed. This button is black and when pressed, another white one comes out and the light appears.

Sunday is again almost over and I go to bed in sweltering and oppressive heat. For the first time in my life, I shall be soothed to sleep by the sound of the restless and persistent rush of the water, over the world famous Falls of Niagara.

### *Monday, 3rd October.*

Rose this morning with the rush of waters in my ears, and my mind is placid, but the atmosphere is restless.

I walked along to the Falls, and saw them for the first time in daylight. I think it was a very sensible decision of mine, to return to Niagara, as the hurried evening view which I experienced in my westward trip was unsatisfying, although it had appeared to be very beautiful and seductive, in the brilliant ever changing glare of a battery of twenty-four 36-inch searchlights. The effect, as I remembered it, had been indeed picturesque and pretty, but nature requires no artificial amelioration.



Niagara—Showing American and Canadian or Horse Shoe Falls



The early morning or late afternoon just before sunset afford the most glorious pictures of grandeur, and the changing light of every hour unfolds some new beauty or reveals an added charm. The relentless rush of water over the two rocky precipices simply mesmerises the onlooker and translates him immediately into dreamland. Such a picture can never be trapped by the lens of a camera, although I did my best to reproduce this wonderful cataclysm of the forces of nature.

The turbulence of lashing waters throwing clouds of crystal spray is awe inspiring, and baffles brush or pen to describe. Nothing exists in the heart of the world with which comparison is possible. Fresh beauties are revealed from different viewpoints. One may stand on the brink of the Falls fascinated by the ceaseless flow of water over the edge of the cliff, but if he descends to the river edge forming the gorge below, the crashing of the tumbling torrents on the rocks on the American side, and into the deep whirlpool on the Canadian side, will demonstrate an unparalleled instance of cause and effect.

Jean and I spent practically the whole of our first day at Niagara sauntering along the shores of the upper river, near Goat Island, and watching the wide sweep of the stream, as it cascaded over the eroded limestone branches that form the upper rapids.

In the afternoon we sailed up the river right under the Falls, in the "Maid of the Mist." Most of the time we were enveloped in spray, but our oilskin coats, hats and gum boots were sufficient protection. It was an experience of a lifetime, but I have no desire to repeat it. The damp atmosphere made it impossible for me to wear my eye glasses, and consequently I had to accept certain spectacular effects as granted. On our return, I was successful in securing quite a satisfactory snap shot of the little vessel.

We intended to go to Detroit during our visit here, but as we found that the trip took 8 hours, our time was too limited to undertake the journey. In any case we had no United States Passports, and on applying for day permits, the American Consul refused them. There is a decidedly strained feeling between Canadian and States Customs at Niagara, and concessions are not possible.

We took the opportunity of attempting to do the Gorge route by tramway to-day, but were stopped at the U. S. barrier and sent back to the Canadian side with our tickets endorsed as "Rejected Aliens." This was the absolute and unutterable limit. Had we booked on the American side of the Gorge, there would have been no trouble, as they advertised "that bridge tolls are included in tramway tickets and no delay or difficulty occurs, through immigration or custom's requirements such as obtain, when crossing by foot or by private



vehicle." The tramways belong to the States, hence the "snag." Many complaints have been lodged with the American Consul, but the *impasse* is not yet remedied. Why, I know not.

We spent a considerable portion of our time to-day in taking photographs.

Retired to rest at 11 o'clock after viewing the illuminations over the Falls for an hour. Weather still delightful but a shade too warm.

### *Tuesday, 4th October.*

The sun is shining brightly this morning and the Falls look wonderful in the clear atmosphere. We can now approach them quite near, without danger of being soaked with spray. We are quite content to-day to revel in the beauties of the district,—taking photos and generally lazing around. We are still fascinated with the indescribable splendour and glamour of our surroundings, and again I must record my complete satisfaction with this second visit to the Falls. It will ever remain in our memories as the most entrancing spectacle of our lives.

While thinking of home sometimes, the recollection became decidedly hazy, as the churning, tossing, foaming waters dominated the senses, and for the time being we seemed to be enmeshed in the folds of a superlative force, stifling our will power, and acclaiming Niagara in a defiant challenge, as the *beginning and end of all things*.

After this rhetorical outburst, the prosaic details pertaining to the source of this gorgeous freak of nature may be uninteresting but they must be recorded. SO HERE GOES! These last three words don't strike me as being quite original nor in my opinion are they *even grammatical*.

The Niagara River carries the waters of Lake Erie a distance of 37 miles to Lake Ontario, with a total drop of 326 feet. Between Lake Erie and the crest of the Falls there is a 65 foot drop; the sheer drop at the Falls averages 164 feet; and the gradient through the remaining 15 miles from the Falls to Lake Ontario is 97 feet. The total stream flow is about 1,500,000 gallons per second, of which the American Fall, with a crest 1000 feet long, discharges but 6 per cent. The main channel between Goat Island and Canada carries 94 per cent., discharging it over the 2600 foot crest of the Horseshoe Fall. This causes an average annual recession of 6 feet at the apex or throat. Depth of Maid-of-the-Mist pool, which receives the entire onslaught of the Horse Shoe Falls, through a perpendicular drop, is about 300 feet. At the lower rapids the depth recedes to approximately 40 feet.



The power plants at Niagara Falls have a total installed capacity of approximately 1,400,000 horse power. Due to treaty limitations in the use of water, the maximum operating output is restricted to about 1,085,000 horse power.

I hope my readers will *now be convinced* that Canada's share of the Falls is *predominant*. These facts speak for themselves.

I am afraid I have not much to say in my daily bulletin to-day, as we again took it easy. I intended going to St. Catherines, but the day was so beautiful, and Niagara so fascinating, that we stayed where we were.

I went a motor run in the forenoon and one of the interesting things I saw, was a well which took fire when a match was applied; still it was excellent water to drink. When the Indians discovered it originally, they were terrified. I don't understand the phenomenon myself, but there it was.

I met an old police officer to-day who was very funny. American soldiers are known as "Dough Boys," and he was asked by a Yankee why they were called "Dough Boys." "Well," he said, "They were *kneaded* in 1914 and did not rise for 4 years." Pretty smart, wasn't it? He also indicated to me that the reason Niagara waters were green was that they had just *Come over*. Also the yarn about "The Maid of the Mist." "The boat," he said "was not made of either iron, steel or timber, because it was made of *Mist*."

He was a great old lad. Jean took his photo, but forgot to *include his head*. Such are the vagaries of photography.

As I mentioned before, there is no love lost between the Canadian and U.S.A. officials at Niagara. "Pork and beans," exclaimed the aforesaid police officer, "are the staple food of the blasted Yankees, hence the reason they are all so full of *wind*." He was an original old cove, and had we stayed much longer, I would have culled innumerable anecdotes from his varied repertoire.

He told me that he had the previous day stopped an American car, which had just crossed the bridge to the Canadian side—because there was no Union Jack flying alongside the Stars and Stripes. The chauffeur was roughly handled by the crowd and he was obliged to hoist the British flag before he was allowed to proceed. This is as it should be. I had seen the commotion when passing, but did not know the reason. I wish I had been informed of the trouble, as it would have given me great pleasure to lend a hand in damaging their "Tin Lizzie."

The afternoon and evening were spent quietly. We seemed to be constantly taking photos, and incidentally adding to our luggage by buying all kinds of souvenirs, from almost every shop that attractively displayed its characteristic wares.



The winter here will not be exciting in any way, and many residents clear away to the cities during this period of the year.

I noticed to-day on the tramcars that the conductor pulled what looks like a communication bell, and this indicates the charge on a dial at the end of the carriage, so that he has no bell or bell punch. If four people are on a seat, he just pulls four times, and collects the money. Quite simple, isn't it?

Another day has passed pleasantly and Jean and I feel well and fit. A quiet walk alongside the cliff acts as a soporific and "rest comes at length" about 11 o'clock.

To-morrow we bid farewell to Niagara. On this our last night, we wander around the beautifully illuminated Falls and the seductive impression created will, I am sure, linger long in our memories. Midnight comes on apace and tired nature will, I feel, in five minutes claim her own.

### *Wednesday, 5th October.*

We went to St. Catharines this morning. It is a fine little town, clean and well appointed. We took the bus from Niagara and had a lovely drive through the vineyards with which the district abounds. There are plenty *wineries* en route and these extend practically to Toronto.

Back at Niagara in the afternoon, we called by appointment on Dr. H. Y. Grant who lives in a lovely old mansion overlooking the Falls. Dr. Grant has retired and is a Park Commissioner. He is very wealthy and keeps his butler and a host of servants. I had an interesting conversation with him about the future of Canada, and he agrees that it is the land of the optimist. He further admits that investments in mines throughout the Dominion are a gamble, but many a gamble makes a fortune. Dr. Grant entertains largely and the American Ambassador was an honoured guest last night.

Jean and I had tea with the Doctor, in a wonderful old drawing room, opening out to the Niagara view. The estate is 5 acres in extent, and leads into the park, so that he really has the use of 10 square miles. Beautiful Dresden china and a solid silver old Louis Fifteenth tea service was in requisition.

Dr. Grant was sympathetic while I told him about our experience of American officialdom—when we vainly attempted to exploit the Gorge route, and indicated that had we appealed to him he would have smoothed over matters for us. He was a most delightful personality, well informed and full of charm. The two hours passed quickly and we parted with a cordial invitation to call and see him again if we had the opportunity.



Dr. Grant spends every winter in Europe, as the climate at Niagara is too rigorous for him, in his present state of health. To-night we leave for Montreal, a step on our homeward journey, and we expect to reach this city at seven o'clock to-morrow morning. Packing has to be attended to, so I will switch off.

#### IN THE SLEEPER TRAIN FOR MONTREAL.

We have finally bade farewell to wonderful Niagara, and to the many friends we made during our short visit. Jean and I have sleeping berths opposite each other, and I hope the journey will be dreamless, although somehow I am not too sure of our nigger train attendant. He may be all right, but he possesses distinctly villainous features, combining certain cannibal characteristics which are for the moment disquieting. I don't like his glaring eyeballs, his flat nose nor the awful puffed up slit across his face. However, I can't see him if I sleep, and this is what I have resolutely determined to do.

These black attendants look after all luggage in their particular train car and, if tipped well enough, they often see one's belongings safely into a waiting taxi. A dollar goes far with these dusky aborigines. This is their Alpha and Omega. I feel that this coloured monstrosity cannot murder us *all* without being found out, so with that solacing thought to comfort me, I shall now draw the curtain and endeavour to guide my senses to forgetfulness.

### MONTREAL.

*Thursday, 6th October.*

And here we are again. We arrived at Montreal by night train from Niagara at 7 a.m. and will pass the day looking around.

I must again record that I don't like the Canadian style of sleepers. To undress and dress in bed, with the chance of getting brained if you lift your head, does not appeal to me, but as the idea started with the Americans, *the matter is explained*. The subtle point is more than obvious, and it will be observed by various incidental remarks, that I have apparently no admiration for our Yankee cousins.

We expect to have the pleasure of seeing Mr. and Mrs. MacKay to-night at the Ritz Hotel where we are presently staying, and it will be a welcome re-union after a fortnight's separation.



I noticed in the train last night quite a hygienic innovation in the form of paper drinking cups. The water tanks are all jacketted with ice, so that in the hottest summer day or night a refreshing cool drink of pure filtered water can be obtained, without the danger of contamination of any kind. As each cup is used, it is thrown away. In our country we do not seem to think that these precautionary measures are necessary, but the idea is surely worth more than a passing thought.

Weather is still very hot and we are spending the day in shopping,—securing belated letters at the offices of the Mining and Metallurgical Congress,—replying to as many as we have time for,—and saying “good-bye” to many of our fellow voyageurs, who were associated with us during our memorable tour from the East frontier to the extreme West border of the Dominion of Canada.

In the evening we again called on Mr. and Mrs. James Aitken and family and enjoyed their hospitality,—for an hour or two. The evening was spent otherwise in recounting many pleasant episodes, which occurred during the good old days at Wellpark Church.

I observed many of my little friends, the chipmunks, frolicking in the gardens and among the trees, right in the centre of the city, and I vainly endeavoured to secure a photo of them, but they were too elusive for me.

10 o'clock p.m.—Our heavy luggage has been sent aboard the “Athenia” which sails for home to-morrow, and our land trip has now arrived at its concluding stage.

11 o'clock—A 'phone message told us that Mr. and Mrs. MacKay had arrived at the hotel, and we betook ourselves to their apartments where we found them enjoying a *recherche* supper before retiring. They both looked well, although Mrs. MacKay was naturally fatigued with the long journey from Bracebridge.

12 o'clock—This is our last night in Canada and I blow my fond farewells through the open window to the cosmopolitan city of Montreal.

Heigh-ho for a good night's sleep and a pleasant voyage.



## S.S. "ATHENIA."

*Friday, 7th October.*

We duly boarded the "Athenia" at 8 o'clock this morning, and every assistance was given by the hotel officials to make our journey thence comfortable. We had absolutely no trouble with our luggage, and it was all safely delivered into our cabins in good time. Jean and I have each splendid 4-berth cabins all to ourselves.

On leaving the harbour, I snapshotted the farewell scene which was full of incident.

Various coloured streamers comprised latterly the only link between the vessel and the landing stage, and these gradually parted when we left our moorings. It was singularly typical of the severing of numerous friendships.

There are only about 35 cabin passengers on board, so that we have abundance of room, but I would have preferred more company. However, this is the close of the season and passengers are scarce. At the "Tourist" end of the ship there are about 130 people and they seem a lively lot.

Instead of a band there is a wonderful gramophone which is switched on to any part of the boat, and the loud speakers do the rest, so that dancing to the same music can be carried on simultaneously in several parts of the ship. It is a capital invention and the apparatus cost, I believe, between £500 and £600. The music is, of course, of the highest class. We have the advantage of hearing the finest bands in the world, under the most favourable auspices. We listened to some lovely selections during meal hours and special items were obligingly played on request.

We are now sailing down the beautiful Gulf of St. Lawrence in brilliant sunshine, and many points of interest passed on our inward trip were recognised, and duly commented upon.

Great care is always taken by the Captains of ocean liners during the passage from Montreal to Quebec, as there are still many uncharted rocks, which may spell disaster at any time, so that all the officers were fully occupied, and had consequently little time for the passengers. They seem a very capable and genial band of workers, entirely absorbed by their duties.

This was a real lazy day and I had many long conversations with Mr. MacKay, reminiscent of our mutual experiences from the time he left us at Cochrane.

The usual stiffness between the passengers is gradually dissipating and I expect we shall all be happy and fraternal to-morrow.



The table cuisine is perfect, and the general service likewise, so that I haven't a grumble.

In the evening there was dancing in the "Tourist" section and we visited the merry throng for half an hour.

The Gulf is as smooth as glass and as I confess to a feeling of reaction to the strain of incessant travel, I am seeking repose to-night at ten o'clock.

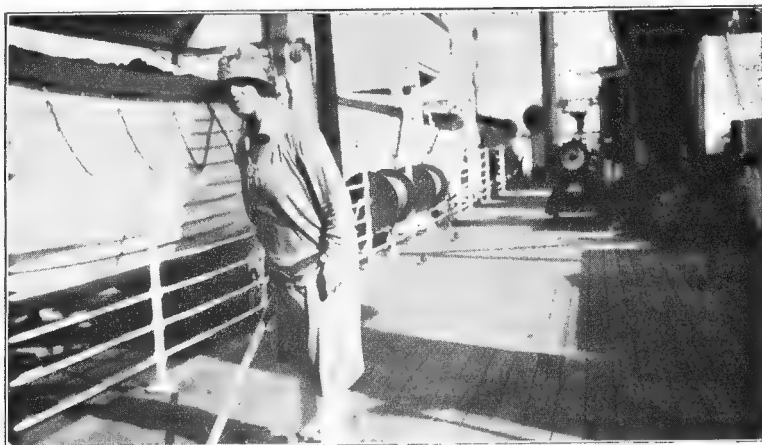
### *Saturday, 8th October.*

Still in the Gulf of St. Lawrence and the day is beautiful although there is a nip in the air.

Called in at Quebec late afternoon to take on a few more "Tourist" passengers and also to replenish the ship's oil bunkers.

At Father Point we dropped the pilot, as the dangerous part of the Gulf had by this time been successfully navigated.

Friendly intercourse among the passengers ripened, and soon the atmosphere of camaraderie developed throughout our floating palace.



Jean playing Shuffleboard

Games of shuffleboard, deck quoits, deck tennis and many other varieties of amusement were enthusiastically engaged in, and the time passed happily. It was a delightful start to our homeward trip, and every diversion was eagerly taken advantage of, possibly urged on by the thought that when the gallant vessel reached mid-ocean, the same steadiness could not possibly be guaranteed.

I spent a good deal of time among the tourists, as my young spirits invariably belie my years and I joined in the fun and frolic with surprising abandon.



There was no gymnasium on the "Athenia" and I missed the benefit of keeping myself fit with dumb bells, electric horses, fencing and boxing. Why such an important adjunct should not have been included among the other luxurious appointments on the "Athenia" I know not, but this particular section of the "Alaunia's" equipment proved a great boon to young and old on the outward run. There was, of course, a nursery on the top deck, but my interest in this direction ceased in my childhood, although I must confess that I engaged in many a romp with the children, during the voyage, in this self-same nursery. Of course the nurse in charge was not *always engaged* with the children.

In the afternoon I enjoyed a siesta and after dinner in the evening I joined in a concert among the tourists. We unearthed quite a galaxy of talent, the outstanding singer being Miss Tina MacIntyre, who is a well known Glasgow soprano. She had been broadcasting in Canada for over two months. I am afraid, now that everybody knows I am no stranger to the piano, I am in for a hectic time at all future concerts. I could have preferred to lie low, but I must be sociable.

Met Mrs. Murray of Coatbridge among the passengers. She was Miss Lemon in the old days and I remembered her well.

Another reminiscent talk with Mr. and Mrs. MacKay and my restful couch was thankfully sought at eleven o'clock. The clock is advanced 78 minutes to-night.

### *Sunday, 9th October.*

This is Sunday and the sea is calm and smooth. We are still in the Gulf of St. Lawrence, and are presently passing southwards of Anticosti, through the Belle Isle Straits. In a few hours we will be ploughing into the open waters of the North Atlantic, but I feel as fit as a fiddle and have no fear of upsetting my equilibrium. However, time will tell. Equilibrium is a polite word for the seat of the trouble, and it may be as vague a term as the French name was to the old Scotchman who was asked if he had been bothered with *mal-de-mer* when he crossed over to the Isle of Man. "No," he replied, "there was a wheen cockroaches in the bed, but I was sae *damned sea sick* I didna' mind much aboot them."

We had a morning service in the saloon, and I played the hymns. The afternoon was spent reading and snoozing, and a concert was given at night. There was some capital singing and I had a full session at the piano.

A promenade round the deck at sunset completed an uneventful day, and we all sought our cabins about ten-thirty. Our little party are all very fit and are enjoying the restful atmosphere of a life on board ship.



### *Monday, 10th October.*

Rose this morning with the feeling that we were certainly on the rolling waves. I safely enclosed a good breakfast and meandered around with the view of being useful. Land has disappeared, and there is no vestige of bird life. I am convinced the gulls don't know what they are missing. The sea is choppy, and a nasty ground swell made a few invalids.

Jean and I are still on an even keel and hope to remain so all day. Mrs. MacKay not so well but she is bravely cheerful.

Tables rather empty at lunch and dinner, but I was in attendance at both.

There was a whist drive in the "Tourist" dining room in the evening, at which I presented the prizes. It is nice to be "somebody" on board.

To-night the wind is rising, and I think we are going to have dirty weather. Apprehension makes me now rather reserved in ordinary conversation, and I am afraid I am not as full of pep as I ought to be. I don't like this depressing feeling which is trying to overpower me, and must endeavour to rise above it. I am perfectly well—I insist on that. It must be nerves. We all fervently hope that the nasty rocking sensation will have disappeared by to-morrow, but we must remember that after all October is not the best month in the year to travel. In these uncertain circumstances we don't linger on our hind legs longer than is absolutely necessary, as it is so much more comfortable lying down. This particular posture tends to lull the nerves of the body to comparative quiescence. Accordingly the day closed for me at 9-30.

### *Tuesday, 11th October.*

I rested well, although up to the unconscious moment when I fell asleep last night, I was apprehensive that before many hours had passed I would be compelled to succumb to the consequences attending the vessel's reckless game of "pitch and toss." However, in my childhood cradle days, I must have had much vigorous rocking, as the swaying of the boat did not seem to upset me in the least, except that I grazed my shins badly when coming out of my bath, owing to a particularly bad lurch taking place at the crucial moment of stepping over the side. Honestly, I took a good breakfast this morning, but there was no general enthusiasm at that meal among most of the passengers. I have absolutely no feeling of nausea whatever, and Jean is even in better fettle than I am.

Nothing could be arranged to-day in the way of sports, games or anything else, as the decks were wet and the rain practically never ceased.



We had a small dance in the "Tourist" end in the evening, but we were pretty well rolled from side to side and a display of decorous dancing was impossible. It savoured more of the scene of a Bacchus Riot to the onlookers, who got more fun out of the hilarious *reeling* proceedings than did the dancers themselves.

The weather continues stormy, with a lumpy sea, and a heavy ground swell. Many passengers, in chameleon fashion, reflected in their faces the colour of the sea-green waves, and were sympathetically escorted to their cabins. To those thus afflicted, the sight of an absolutely healthy person, effervescing with the joy of living, is apt to create positively murderous feelings in their hearts and, as I wish to avoid any semblance of a tragedy, I am retiring early with the hope of brighter climatic conditions in the morning. As I catch on to the cabin stair railing with both hands, the rolling of the ship increases. It is labouring along against a heavy swell full abeam, but this cannot last for ever, and we all have the fullest confidence in our Captain and his gallant officers and crew. Tarpaulins are securely fixed and all fastenings tightened.

Ten o'clock and I am being "rocked to sleep in the cradle of the deep."

### *Wednesday, 12th October.*

This is Wednesday and Exchange Day in Glasgow, so that my thoughts are reverting to home now.

I had a sound night's sleep, but the rain still continues and the ground swell makes us all uncomfortable.

I shall endeavour to do my duty bravely at table, but this morning I confess to feeling a slight temperature. Still no nausea. This discomfort soon passed and I was a good Samaritan to many poor people who were longing for the end to terminate their sufferings. I dosed them with brandy neat and then a little soda water. This was quite an unselfish act on my part, as my patients were more or less in a comatose condition, and consequently when they recovered later, they had not the slightest idea to whom their gratitude was due. The remedy I mentioned was unfailing, but much repetition was necessary to effect a permanent cure. I am convinced that I owed my own personal comparatively healthy condition under the existing trying circumstances to the fact that I was scrupulously moderate in all my daily habits and, before each meal, a small aperitif helped to soothe the particular nerves that controlled my digestion and *there you are*.



We had several French priests on board, some going to India and some to South Africa. They broke into song on the slightest provocation and reminded me of similar spontaneous vocal outbursts which characterise our Welsh compatriots. Fervour of disposition does it. It is entirely a question of temperament.

Quite a good concert took place to-night and these enthusiastic young fellows rendered several very jovial items—all in French—each song terminating with a lusty chorus. I got quite friendly with them and found them to be men of culture and wide vision.

I warbled several times and Jean also contributed. She sang exceedingly well. I really did not badly myself, but the songs I sing *don't depend* specially on resonant vocalisation. I must be honest about my share in the programme. All the same, I had pretty continuous work at the piano with the accompaniments.

After the concert was over, we had a dance in the "Tourist" section, as the gale had moderated somewhat, and we kept the fun going till midnight.



My little friend "Freda Tully."

I hope the sun will shine to-morrow as we have not seen much of it since we left the Gulf of St. Lawrence. Owing to bad weather, the boat has lost considerable time buffeting against head winds and, instead of arriving in Glasgow on Saturday, we expect we shall not reach port till the following day. It is a pity that the bad weather prevented us from enjoying the numerous pastimes, which life on board ship affords, but we carried on as best we could, and mutual



sympathy is, after all, a pleasurable sensation. I romped about a good deal with a dear little Canadian four year-old child, whose name was Freda Tully. Her father had met his death by drowning a few months previously, in Lake Winnipeg, and she was coming to England with her mother to visit relations. She was a sweet wee mite and I think I photographed her every day. Freda's mother was a very charming lady and seemed to live solely for her baby. There are many tragedies in life.

Mrs. MacKay has completely recovered and Mr. MacKay is consequently quite happy again.

It is now 12-30 and I must close this daily record which, through no fault of mine, is not, I am afraid, too full of general interest.

### *Thursday, 13th October.*

On rising this morning at 7-30 I realized at once that the sea had become comparatively calm, so that my daily ablutions were overtaken in comfort. There was a persistent drizzle, however, during the forenoon, but at midday the sun actually smiled on us. Many wan faces now appeared on deck for the first time during the voyage, and although the owners of these faces endeavoured to be cheerful, they looked like disembodied spirits, so ethereal were they. As the day went on apace the temperature became warmer, but the heavy atmosphere made visibility very bad. I managed to take a few photos during a short spell of sunshine, but the conditions might have been better.

As I expected, dense fog descended on us early in the afternoon and the horn was blown at short intervals. Nothing is more monotonous on board ship than to suffer the dull intermittent notes of a fog horn. We could not see a yard in front of the "neb" of the boat, but we knew that every officer and every member of the crew were keenly alive to all possible danger. We simply crawled and then stopped. Fog is really the sailors' worst enemy. We all realized the position and our interest in conversation and deck games flagged; we became keen and anxious navigators. We were certainly out of the line of vessels coming in the opposite direction, but what was to hinder a helpless craft losing her way to the extent of a few points and thus becoming a menace? Jean got the wind up and wisely retired to bed.

In the evening the dense bank of fog slightly lifted and the passengers enjoyed, in a way, another concert which was followed by a dance. Thus we kept our spirits up, but the elements throughout the voyage have not been kind to us.

I retired at midnight with the sound of the fog horn in my ears, but blown, I am thankful to say, at fairly long intervals.



### *Friday, 14th October.*

I must have slept soundly last night, turning a deaf ear to the insistent call from the gentleman with one note in his voice, but the raucous sound is no longer heard this morning, as the mist has disappeared with a shower of rain, and the atmosphere appears to be fairly clear. We were quite a cheery party again, and I passed most of the day taking photos and challenging all and sundry to the various deck games which had been for days neglected on account of the weather.

The dining saloon also filled up wonderfully, and there has actually to be a Fancy Dress Ball to-night. This will take place in the Tourist and Steerage cabins, as the first-class passengers (except our own party) seemed to be afflicted with a stodgy complaint, called indifference or *ennui* right throughout the voyage, and no movement of this kind was even contemplated in their part of the ship.

The afternoon was warm and pleasant, really too warm for October, but perhaps the weather clerk is trying to make amends. "*Too late old chap. We are tired of you.*"

We expect to arrive in Belfast to-morrow morning and passengers for that port leave at 6-30 a.m. Hence many farewells are taken to-night, as interest in departing fellow sufferers is not keen enough to warrant such an early rise.

The Fancy Dress Ball was very funny. It took place in the two sections aforementioned, *i.e.*, the Tourist and the Steerage cabins, and the contingent from the latter displayed wonderful originality. I brought a crowd of the first-class passengers along to witness the scene of pent up energy, and while they stood aloof, I plunged into the middle of the seething mass of merry makers. I left the happy dancers about one o'clock, just when they were getting into the real carnival atmosphere, and retired to my cabin, a dishevelled perspiring wreck of humanity. I really forget at times that it is a considerable period since I was in my teens. However, I had a very happy time and after a cool sponge down I am sure I will be all right and shall sleep with a sense of duty faithfully and heroically performed, despite *the weight of years*.

### *Saturday, 15th October.*

Stopped early this morning outside Belfast and Irish passengers were landed by tender. Needless to say I was *not on deck* to speed the parting guests, as the hour, 6 o'clock, was quite unsuitable to a tired man.

Breakfast over at nine, the various decks began to show signs of wonderful activity, as the last games were to be played



and hurried farewells had perforce to be taken by Liverpool passengers, who were due to land at two o'clock. The usual protestations of everlasting friendships, soon to be parted, were abundant on every side, but in how many cases are they really sincere? How often do we compare ourselves to "ships that pass in the night," and how true is the saying?

We soon observed the "Adriatic" on her way to New York and as many other vessels are coming into view, we must surely be nearing Liverpool.

Liverpool was reached at 2-30 precisely, and about forty passengers disembarked by tender. I had a last glimpse of my dear wee friend Freda, a pathetic tiny figure, holding tightly to her mother's hand, waving a tear begrimed handkerchief as long as she could see me. Freda and her mother were among the passengers we left at Liverpool.

Retracing our line of passage, down the Mersey, the afternoon passed quietly, and packing against our arrival in Glasgow on Sunday morning occupied much of our time till the dinner bugle sounded. I forgot to record yesterday that I sent a wireless home indicating the approximate hour of our arrival at Prince's Dock, and to-day I am wondering what changes have taken place among my own circle of friends during my two months' absence.

After dinner, on this our last evening at sea, we had a boisterous sing-song on the upper deck, and Mr. MacKay proved himself to be a *great chorister*. Later—for the first time during the voyage—an alfresco concert was held in the first class lounge and was a tremendous success. I played everything I knew, and everybody sang or told a tale. The Captain eventually joined us and he convincingly proved himself to be a "jolly good fellow." A Canadian minister, who had been suffering from a nervous breakdown, and who had to be constantly watched lest he should slip quietly overboard during the voyage, joined with great gusto in a Reel. Dancing was enthusiastically engaged in till midnight and the dry bones of the *elite* on board the "Athenia," only now began to show some elasticity and signs of life. After all, there was abundant proof to-night that what I took for stand-offish dignity was merely a certain reserve of manner which is so often misconstrued, but which certainly spoiled the trip for those who were so afflicted.

I finished packing before going to bed at midnight and we are looking forward to the welcome home that surely awaits us all in the morning. The evening sky is clear, the sea is calm—and we are making good progress. Our memorable tour is almost over.



*Sunday, 16th October.*

At eight o'clock we arrived safely at Prince's Dock, Glasgow, where my brother John, to whom I had faithfully sent this record of my adventures up to the point of sailing for home, was waiting for us with the car, and a motor lorry was available for our luggage. The Customs officials passed all our belongings without opening a box or bag, with merely an assurance on our part that we had nothing dutiable.

### *"SOUTH PARK," COATBRIDGE*

In half an hour we were home, and the welcome we received from everybody in "South Park," even including the dog, was affectionate, cordial and satisfying.



Welcome Home to "South Park"

Thus ended the most wonderful trip of our lives. We have brought overseas many characteristic souvenirs, including Indian skin pictures, Indian costumes, and many examples of Canadian products of all kinds.

I have also in my possession a numerous assortment of mineral samples—gold, copper, silver, nickel, asbestos, mica, etc., secured by my own hand, from the mines I explored from east to west of the Dominion of Canada, and these are all carefully tabulated in a manner which, I am sure, will be interesting to all who desire knowledge of the great resources of our richest and most unexplored colony.



In closing, I again tender to the Canadian Institute of Mining and Metallurgy, my warmest thanks, for their unparalleled foresight and triumph of organization, to the minutest detail, in connection with the planning of the most outstanding and most comprehensive *trip of my life*. Comfort was often even superseded by luxury and the sincerity of our welcome everywhere was always accentuated by the delightful hospitality of the many friends we had the pleasure of meeting and associating with at the different places of interest where we sojourned from time to time.

Members of Congress tried hard at times to shew their warmest appreciation and unbounded gratitude in various ways, and lamentably failed. No words were ever penned that can sufficiently describe the feelings of those who came from all parts of the industrial world, in response to a wonderfully sincere and hearty invitation to visit this land of achievement, and of still richer promise.

Our vocabulary is too limited. We can only say to our Canadian friends, "Thank you," from the bottom of our hearts a million times, and leave it there.

We shall never forget. Can we ever hope to reciprocate in a similar princely manner? If we succeed, it will be the *effort of our lives*.

I don't know as to my success, but I have attempted to narrate my impressions of Canada, from my own simple point of view with not a single trace of journalistic "touching up" as I confess I am quite ignorant of this particular art.

As I indicated in my prefatory remarks the issue as to condemnation or otherwise lies with the peruser of these pages.

Regarding Canada itself, I must reiterate that I found it extremely fascinating and alluring.

To those who have plodded through my diary to this point, I would, in conclusion, say, "Go to Canada and see for yourselves what no man can adequately portray. There is something hidden—something not yet found behind the ranges—lost and *waiting for you*. If you discover it, such a brave adventure will be a noble duty accomplished, and a new pride will arise in your breasts for this Canada of ours."

Your newly acquired knowledge of difficulties overcome, will strengthen your general outlook in life, also your inherent patriotism, and you will for all time jealously stand for the defence of the honour of this Mighty Heritage which is bequeathed to those who, by hand and brain, possess the desire to develop the resources of the British Empire and her Colonies.





## APPENDIX.

I have included so much detail in the foregoing pages that there does not seem to be a great deal more I can say within the range of my own personal experience. I feel constrained to repeat, however, that more practical interest should really be taken by our Government, in exploiting the minerals in Canada, for the benefit of the unemployed in this country.

Canada is crying out for development in all her industrial areas, and both *Labour* and *Capital* are urgently needed. I am credibly informed that concessions are being constantly captured by American Syndicates and if we don't watch out, we may realize when too late that our apathy has eventually cost us the loss of our wealthiest Colony. As with the States, whose independence was declared over 100 years ago, history may repeat itself, perhaps by annexation this time.

Transport facilities throughout the Dominion are rapidly improving, particularly by means of the aeroplane in the mining country north of the railway line. Every day vast loads of material and food stuffs are despatched by air to mining camps throughout Ontario, Manitoba, and also north of Hudson's Bay. Even regions hitherto unmapped and unexplored are being opened up through this agency, and much time is consequently saved, as many weeks of spartan labour, through virgin bush, and over uncharted forest trails by dog team, or by canoe down rivers and across small lakes with innumerable portages, are thereby avoided.

Around Long Lake and Red Lake where I enjoyed my first air trip, transportation is *made entirely by aeroplane*, and this can scarcely be wondered at, when we learn that by other methods already referred to, it often took about two days to *cover 10 miles*. Thus has the aeroplane come to its own in Canada, and it will doubtless hold the fort till a net work of railway lines, throughout the hitherto unexplored regions, make the path easy for prospectors and mine owners.

In *America*, pioneering work was simple compared with the difficulties encountered in Canada. The central portion of the States comprises a series of plains which contain the "greatest storehouse of farming wealth in the world." In the early days of British settlement, following the inland push from the Atlantic coast across the eastern mountains, the resources of these great plains were steadily developed over a huge area *comparatively free of physical barriers*. Thus in the States the pioneer armies deployed on a tremendous front over the north and south portion of the country. The westward march moved forward without halt, and still keeping a fairly even front, made few detours, and left behind it no large unsettled areas.



In *Canada* the pioneers were faced with *very different conditions*. The St. Lawrence waterway gave ready access to those portions of the great interior plains, projecting into Eastern Canada, and for a period the earlier Canadian settlement kept pace with the American westerly trek. At the Michigan boundary, however, the Canadian line of advance was stopped short by the upward swing of American territory. Blocked towards the west, Canadian settlement turned to the north, overran the relatively small plains-area of Ontario, and again found itself blocked by the Laurentian Highland. Thus Canadian settlement was confronted with such a barrier never encountered by the American pioneer.

There were a thousand miles of rugged wilderness—for the greater part hostile to agriculture—separating the Canadian landseeker from the vast expanse of fertile plain lying far to the west. Railways finally bridged the gap, but these railways are only laid along definite trade routes, and for this reason countless valuable coalfields in many districts are outside the pale of a commercial proposition, as cost of transport to the industrial centres is prohibitive. About *fifteen million tons of bituminous coal*, and nearly *four million tons of anthracite* per annum, are sent from Pennsylvania to Canada, and I do not see why Britain should not have a larger share of this business.

I received much valuable information on this subject from Dr. Charles Camsell, Chairman of the Dominion Fuel Board of Canada, and from Mr. D. O. Wood, General Freight Traffic Manager of the Canadian National Railways, and I am convinced that with a little more hustle, British exports of all classes of coal to Canada could be considerably extended.

Regarding anthracite shipments from Britain, Dr. Camsell put the following information at my disposal, in a personal letter, as follows :—

" At the inception of the Dominion Fuel Board in 1922, it was fully realized that one of the most likely sources of supply outside of Canada was the coal fields of Great Britain, and from then on the Dominion Fuel Board has done everything in its power to encourage the importation of British anthracite to the St. Lawrence market, which is the market available for your coals.

Considerable headway has been made which may be more fully realized, when you compare the anthracite importations from Great Britain to Canada in 1922, which amounted to approximately 180,000 tons and those of the present year which amount to considerably over 600,000 tons as at the first part of October. The St. Lawrence market absorbs practically all British coal imported into Canada, very little being shipped direct to points in Ontario. Trans-shipment from Montreal



to some of the nearby Ontario towns is carried out and a market for approximately 50,000 to 75,000 tons does exist within a radius of 100 to 200 miles from Montreal.

When Welsh anthracite was first introduced into Canada, some little difficulty was experienced in supplying a coal suitably sized for our markets. This was chiefly on account of it arriving in an unsized condition, which when handled to any extent produces considerable slack. Canadian consumers were and are accustomed to having prepared sizes which have been supplied by the United States operators for many years. However, in order to adjust the British anthracite business to our market conditions, Canadian importers *installed sizing and screening apparatus* at Montreal similar to that in use at American mines.

It may be explained that most of the household furnaces in that part of Canada which offers a market to British anthracite are of a type requiring prepared sizes of coal, and for this reason you will appreciate the necessity of the crushing and screening operations above described. The adoption of these operations has put the British anthracite business on a very satisfactory basis in Canada."

*I have consistently preached the gospel of developing more Canadian outlets for British coal throughout the mining areas of this country since my return from Canada, and I know that a certain amount of interest has been awakened, but the wheels of new market exploitations run slowly in the old country.*

The stay at home man "hath ever homely wits" and, in my opinion, I do not think we let loose sufficient capable commercial representatives to spy this land of promise. Most of the business up till now has been carried on by resident agents, but buyers, as a rule, prefer to see "the man at the wheel." The "personal touch" is invaluable for success in every sphere of industry.

I am afraid it would be labouring the point to submit in this treatise too many competitive figures for the guidance of British coalowners, but consider the following authentic transit charges from Scranton, Pennsylvania, for coal. They are as follows:—

QUEBEC—Five dollars 53 cents per long ton.

MONTREAL—Four dollars 96 cents per long ton.

OTTAWA—Five dollars 23 cents per long ton.

Taking into account 50 cents tariff per short ton from the States against 35 cents, less 10% per short ton, for British coal, our own country has a clear advantage *in its favour*, of over 18 cents per short ton.



I may just mention that Anthracite, and Lignite coal and coke, are *duty free* into Canada, from all countries.

For the purposes of comparison with U.S.A. transit costs, quotations were sent to me from various shipping companies, round about 6/- per ton f.o.b. Glasgow to f.a.s. Quebec and Montreal. This information ought to be enlightening and the following list of rail charges from Montreal should go far to strengthen my contention that competition is more than possible. The figures are again Dr. Camsell's. Continuing his letter to me, he says :—

“ In regard to freight rates in Canada, the following are in force at the present time and it might be of interest for you to know the cost of trans-shipping from Montreal to the undermentioned localities :

From Montreal.	Nett Tons.
To Ottawa, ... ..	\$1.50
Hawkesbury, ... ..	1.45
Shawinigan Falls, ... ..	1.60
La Tuque, ... ..	2.20
Cobalt, ... ..	3.82
Iroquois Falls, ... ..	4.67
Cornwall, ... ..	1.50
Brockville, ... ..	1.50
Kingston, ... ..	1.75
Belleville, ... ..	2.30
Toronto, ... ..	2.90
North Bay, ... ..	3.90”

Surely this shews that we can compete with British coal, far inland, as these figures speak for themselves. If we could only divert orders for, say, seven to eight million tons of Bituminous coal to Britain, the coal trade would again become a prosperous industry. Dr. Camsell further adds :

“ The question of importing British anthracite or *fuels suitable for domestic heating* is engaging our attention, and although we have made considerable progress in cutting down American anthracite importations, there is still room for *further replacement* which it is sincerely hoped will be taken advantage of by the coal operators of Great Britain.”

By this it will be observed that we are certain to have Canada's hearty co-operation in securing their markets, but if we sit in our armchairs these markets *are not likely to come to us*. We have undoubtedly made considerable headway with our Anthracite in Canadian markets during the last two years, but, after all, British Anthracite is generally recognised to be *the best in the world*, and it only requires the ordinary commercial qualifications of personally spreading the glad



news of incomparable quality in our products to interested consumers overseas, to ultimately treble and even quadruple the export of coal to the Dominion of Canada.

The collieries in Nova Scotia and New Brunswick supplied to Canadian markets in 1926 a total of 6,920,586 tons of Bituminous coal. Let the good work continue, however, in this direction from Dominion sources, but I would dearly like to see the States competition eliminated to some extent, and I feel that we can accomplish this from the mother country if we will only wake up. Edmonton is a great coal centre, but it can only supply its own local industries, and the railways that pass through the city. The conditions here tend to make this city a positive hive of industry. The other coalfields in Canada have been already described in detail and need not be further commented on.

Later communications which I received from Dr. Camsell do not say as much as I expected in favour of the export of Bituminous coal from Britain, but he was probably keeping before him the possibilities of increased supplies emanating from Nova Scotia and New Brunswick. What more concerns me, however, is the urgent desirability of British coal owners to face the present *American* competition, and secure *their just quota*.

Britain, at the present moment, does send about 150,000 tons Bituminous Coal into Canada every year, but with our favourable freights and transport charges, we ought to be in a position to implement orders for several million tons.

I think I have recorded all I want to say regarding the possibilities of an extension of business in coal from Great Britain, and I now leave the data I have collected on this important industry to be assimilated by all our coal mining magnates who may be interested.

With the approximation of American steel works, our own exports in steel to Canada are comparatively negligible, but there is still a good demand for malleable iron, and I believe this particular industry is being carefully nursed. I understand we hold the market principally for *Iron Tube Strips*.

Adverting again to the wonderful and varied resources of the Dominion, I have endeavoured in my unconventional Diary to reveal a real coast to coast general view of Canada's natural productive strength. Settlements are now spanning the prairies and to-day it is the *western half* of the continent that exhibits the Dominion's closest counterpart to American development. This development has now reached a stage somewhat similar to that in the United States about 50 years ago.

I ask my exhausted readers to visualise what has been accomplished during the last 25 years in Canada and then



ponder what may occur during the next 25 years. There are yet many fortunes to be made in this land, whose pioneers were *essentially Scottish*.

One of the many advantages that will appeal to us all is low taxation, born of a sound fiscal policy, and up till now I understand there has been a freedom from paralysing trade disputes, which combine to create ideal industrial conditions. Have I described and illustrated the real versatility of the Dominion as a physical property—the diversity as well as the strength of the natural assets which Canadian growth is capable of bringing into play? Have I proved by duly authorised figures that more business can be done by British coalmasters in their particular line, for industrial and domestic consumption throughout Canada? If so I will now positively conclude this appendix which, being the “tail” of the narrative, has obviously resolved itself into quite an abnormal “appendage.”

I have at the same time incorporated what I deem many important facts and figures in this closing summary, but it was not really intended that “the tail should wag the dog.”

The future will shew if a *posthumous* record of my Canadian tour would not have been more advisable, so far as my personal safety and hitherto unblemished character are concerned, but I am bravely taking any risks that are going.

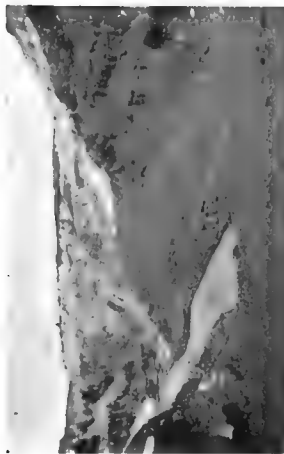
I know that many of my statements are not free from incongruities, errors, and perhaps a touch of egoism at times, but in extenuation of these faults I can only plead again that my literary experience is limited, and certain modes of phraseology are in consequence apt to be misunderstood.

I am confident that *old friendships* will influence criticism, and I therefore unhesitatingly resign myself to that justice, which I know will be duly *tempered with mercy*. Friendship is the sweetest thing in life, and I sincerely hope that Reader and Diarist will continue to remain on the closest possible terms of mutual respect.

As old *Aechylus* writes—“**Happy is the man whose life is spent in friendship's security.**”

R. L. P. B.





Open Cut Sub-Bituminous Coal.  
Coal Valley Mining Co., Ltd., Coal Valley, Alberta.



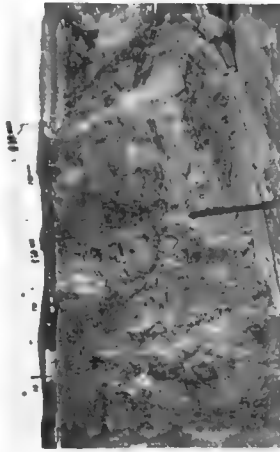
Open Cut Sub-Bituminous Coal.  
Sterling Collieries, Ltd., Sterco, Alberta.



Loading Steam Shovel.  
Coal Valley Mining Co., Ltd., Coal Valley, Alberta.



Low Trestle Bridge over Morass, near Rouyn,  
Quebec Province.



King Mine, Thetford,  
Asbestos Corporation, Ltd., Quebec Province.

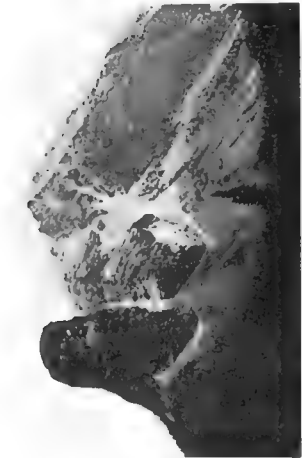


Lake Shore Gold Mine.  
Kirkland Lake, Ontario.

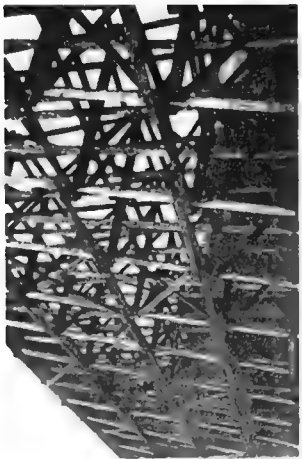




Cape Breton Collier Deep Laden in the  
St. Lawrence River.



Tower of Babel, Rocky Mountains, Alberta.  
Near Lake Moraine



Railroad Trestle Bridge.  
Kimberley, B.C., from Ground Level



Clay Beds worked by Steam Shovel,  
Don Brickworks, Toronto, Ontario.

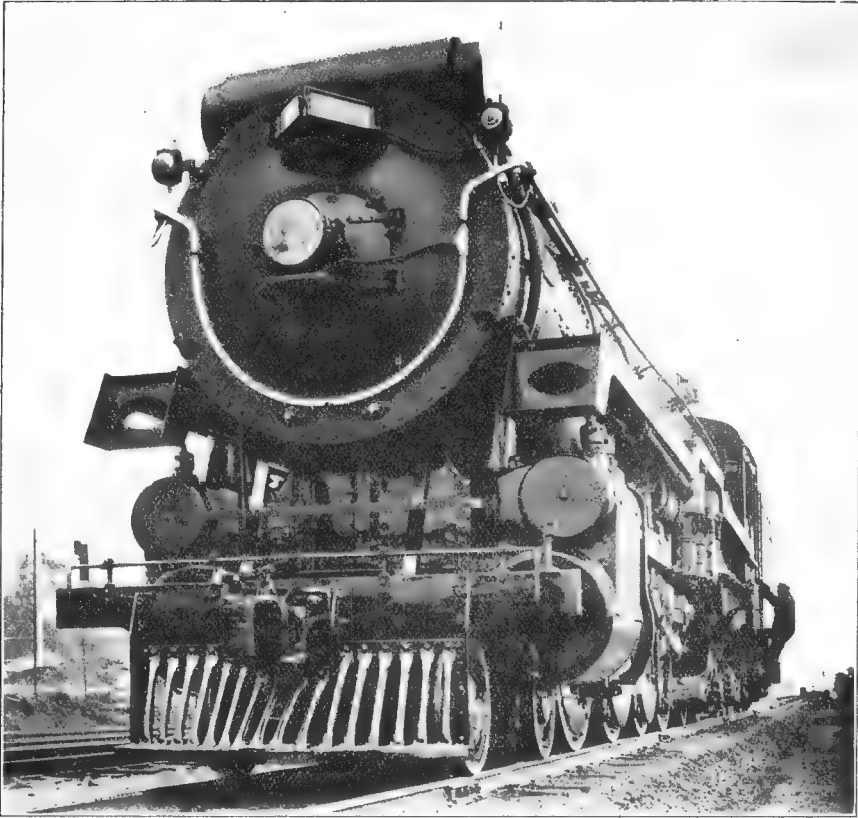


Dry Bed of River Montreal,  
Cobalt, Ontario.



80 Miles Level and Straight. Prairie either side.  
Estevan to Moose Jaw, Sask.





### Latest Canadian Pacific Locomotive

3100 Type. K-I-A Class.

(The largest in the British Empire)

Ninety-seven feet five inches long, with tractive effort of 60,800 pounds equal to 3,685 horse-power. Weight 424,000 pounds. Boiler pressure 275 pounds.

Eight pairs of wheels, a four wheel loading truck, eight drivers and a four wheel trailing truck.

Drive wheels 75 inches and Cast Nickel Steel Cylinders 25½ inches by 30.

Coal capacity 18½ tons and water capacity 12,000 Imperial gallons.

Locomotive fitted with mechanical stoker.

Built in Angus Workshops, Canada.















